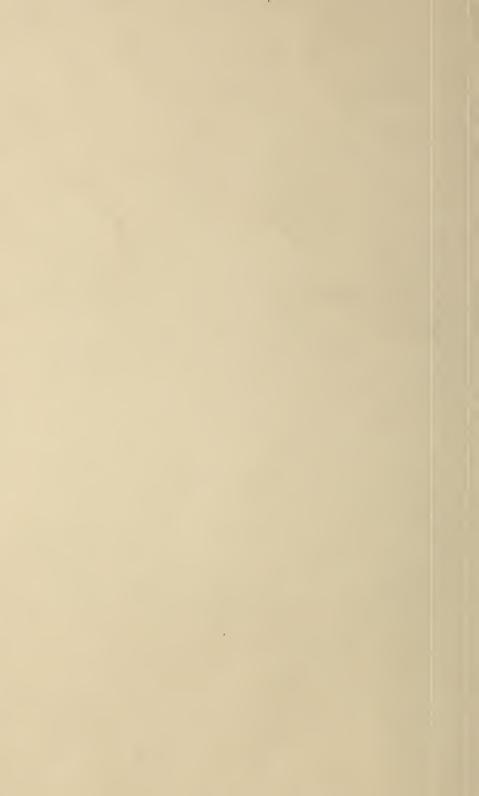
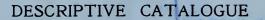
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ESTABLISHED 1850.

51ST YEAR.



----OF----

## Fruit & Ornamental Trees, SHRUBS, VINES AND PLANTS.

CULTIVATED AND FOR SALE BY

### The FRANKLIN DAVIS NURSERY Co.,

BALTIMORE AND RICHMOND NURSERIES, BALTIMORE, MD., RICHMOND, VA.



Richmond Office:

918 MAIN STREET, Up-stairs.

Baltimore Offices:

N. E. Cor. BALTIMORE AND PACA STS.

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OF

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PRESS OF
THE FRIEDENWALD CO.,
BALTIMORE, MD.

## OF REFREE OF





T IS once more our pleasure to present to our friends and patrons a new edition of our DESCRIPTIVE CATALOGUE OF FRUIT AND ORNAMENTAL TREES, ETC., and in doing so we tender to them our sincere thanks for the many expressions of encouragement and substantial aid they have given us. We will endeavor in the future, as we have in the past, by strict personal attention to business, to merit their patronage and good will.

The lamented Downing said, in the introduction to his work on fruit and fruit-trees, that "A man born on the banks of one of the noblest and most fruitful rivers in America. and whose best days have been spent in gardens and orchards, may perhaps be pardoned for talking about fruit-trees." We must claim indulgence, for similar reasons. Forty of the best years of our life have been devoted to the nursery and fruit-growing business; and if we seem to urge these subjects beyond the rules of propriety, our apology is, that we think we are working in a good cause and for the good of our fellow-men. He says further: "Indeed, the subject deserves not a few, but many words. Fine fruit is the flower of commodities. It is the most perfect union of the useful and the beautiful that the earth knows. Trees full of soft foliage; blossoms fresh with spring beauty; and finally fruit, rich, bloom-dusted, melting and luscious. Such are the treasures of the orchard and the garden temptingly offered to every landholder in this bright and sunny though temperate climate." We are pleased to note an increasing interest throughout the whole country in the cultivation of the useful and beautiful. Both fruits and flowers are more highly appreciated by the masses than formerly, and we regard it as a most happy indication, not only in the effect it will have upon the health of the body, but also in the softening influence it will have on the harsher feelings of our nature.

Since our last Descriptive Catalogue was sent out, the demand for trees from our nurseries has increased to such an extent that we have been forced to greatly extend our operations in order to supply that demand. This increased demand for our products, we must conclude, has been induced, to a great extent, by the superiority of the stock sent out from this establishment. The capacity of the "Richmond Nurseries" was taxed to its full-est extent, and we realized that our trade could not be properly and profitably extended further except we established a branch nursery at some other convenient shipping point. In 1877 we commenced plantings at Baltimore, at the same time continuing our large plantings at Richmond, and to-day our Richmond and Baltimore Nurseries are among the largest in the world; and our facilities for growing first-class nursery stock, packing orders rapidly, accurately and in the best manner, are not to be equalled by any other nursery in the country.

Every season our trees are shipped north, west and south by the thousand and tens of thousands, and we flatter ourselves that the steady and marked increase in our trade is evidence of the fact that our stock cannot be excelled, and that the trees we have sent out in former years have, in every respect, proved satisfactory. In the autumn of 1867 we sent 163 varieties of Apples to the grand exhibition of the Pennsylvania Horticultural Society, held at Philadelphia, Pa., and there, amidst all competition, were not only awarded the first premium, but the committee, in consideration of the very extraordinary display, voted us a diploma to further show their appreciation of our splendid collection. In 1877, at the exhibition of the American Pomological Society at Baltimore, we were awarded a "Wilder" medal for the largest and finest collection of Apples. With these and other evidences of our success, and the many encouraging words of our friends, we do not feel like relaxing our efforts, but, on the other hand, are induced to push on with renewed energy; and while we are adding to our acres we are also watching closely all the new fruits that are brought to notice throughout the country. If their merits seem to justify it, we add them to our list and at the same time discard those that have proved less valuable. Our Catalogue is, there-

fore, under revision all the time, and every succeeding list that we make is an improvement upon the one preceding it. We now call special attention to our list of Apples and Peaches, which contains several new and valuable sorts; our selection of Grapes and Strawberries is also greatly improved by the addition of new varieties.

There are three considerations that claim the attention of purchasers of nursery stock: First, it is of the greatest importance to procure a *fine* article, true to name. Secondly, it is of vital importance to secure good, *healthy* stock, for without a healthy plant to begin with, we have but a poor chance of success; one healthy stock is worth a dozen sickly ones. Thirdly, success often depends on *careful packing*; without it thousands of dollars' worth of trees are annually lost.

To secure the first, we have tested in our specimen orchards nearly all the leading varieties of fruit, and our orchards, being planted in different localities, enable us to judge the merits of the fruit and its success in different soils and situations. We will propagate largely only of sorts we know will succeed in the section in which we intend selling them. Secondly, we will send out nothing but good stock. Thirdly, our packing will be done in the best manner, and by experienced hands, so as to insure the safe transit of the trees.

BUDDED APPLE-TREES. The superiority of this mode of propagation has long been acknowledged by intelligent nurserymen and orchardists, yet nine-tenths of the Apple trees sold are root-grafted. Nurserymen have not grown budded trees, for the reason that it costs more to propagate in that way than it does to root-graft, and it has been difficult to get many planters to pay that additional cost; but we are glad to see the people in some sections awakening to their interests. In the west some of the pomological societies have passed resolutions condemning root-grafting, and their members resolving that they will only plant budded trees. We do not wish to wait to be led in the path of duty; our aim is to go ahead and do the best we know for our patrons. We have staked a large sum in getting up a splendid stock of this sort, relying upon the better judgment of purchasers to sustain us in the enterprise. There has been much complaint for many years of trees dying prematurely in orchards, sometimes even before they had arrived at a bearing age. Upon examination the trouble would sometimes be found at the root, and frequently just above ground, at which point the bark would be found cracked or blackened. This latter trouble does not always kill the tree at once, but often causes it to die prematurely. These ills can, to a great extent, be obviated by planting budded trees. We have not space here to discuss the question fully, and will only attempt to point out a few of the reasons why the budded ones are best.

In the first place, in piece-root grafting we take a seedling stock, cut the root up in pieces of about two inches in length, sometimes making five or six cuts out of one root; into each one of these we insert a graft three or four inches in length; when these are set out in the nursery-row the graft is placed so that only about one inch remains above ground therefore, two or three inches of the scion is placed in the ground and thus quite out of its proper element. The ground is the place for the root, but the scion should be where it can get light and air. Trees grown from root-grafts are more like cuttings than nature's plants. The roots from these small pieces cannot be so well developed as to properly feed the tree or hold it up; hence they are frequently uprooted by storms, when those with a better system of roots stand firm. To grow budded trees we must plant the whole stock, with its crown at the surface, as nature produced it. The bud is inserted several inches above, thus leaving the natural seedling stock near the ground, it being more hardy and better able to resist the severe changes of wet and dry, heat and cold, than the scion of the root-graft, which is several inches below its proper place; then we have the whole root, strong and unimpaired by division, to feed and develop the bud. It needs no argument to convince those who have seen the roots of budded and root-grafted trees that the former are much more numerous and more perfect in their development than the latter, and as the tree is not only held in its place by its roots, but also receives the most of its nourishment through them, it is plain to see why it will grow larger, live longer, and bear more when budded than if grown from a root-graft. We do not propose to stop growing root-grafted trees at once, for the reason that it would be suicidal to our pecuniary interests to do so, as there are persons who are "penny-wise and pound foolish," who will not be convinced that one thing looking to their eyes as good as another is not just as good; for, to the unpracticed eye, root-grafted trees standing in the nursery-row look just as well above ground as budded ones do; but

we will convince them as fast as we can that, in making an improvement of such an important character as planting as orchard, there is no economy in saving a few dollars by purchasing an inferior article. Select the best, so that they will endure for the longest possible time, and not have your hopes blasted by your trees failing at the time you expected something from them. It costs four to six times as much for stocks to begin with; then it requires one year longer to grow them from bud; and, again, root-grafting is done in-doors during the winter months, when nurserymen can do but little out of doors, while budding must be done in the summer season and out of doors, when labor costs more than in winter time. So our patrons can see that it costs us fully the difference in price asked for the trees. There is just as much or more money for the nurserymen growing root-grafted stock as there is in the other. We have gone largely into growing budded trees, because we know they are the best. Our root-grafted ones are as good as any grown, and while purchasers will have them we will give them as good as can be produced.

We do not propose to grow *cheap* stock, but the *best*, and our price for the same will be as reasonable as we can afford. We ask a comparison of prices with other first-class houses.

Our collection embraces not only those varieties best suited to Virginia, West Virginia, Maryland, North Carolina and Tennessee, but also the most profitable sorts for the Northern, Southern and Western States. Keeping up a correspondence with nurserymen and fruit-growers in different parts of the country, we are enabled to secure anything new of value that is brought to notice, either in this or in foreign countries. We will, however, be careful in recommending new varieties until they are thoroughly tested, as much disappointment has been experienced by planters by going into untried sorts on the recommendation of parties pecuniarily interested in the sale of such. We do not claim infallibility—errors will sometimes happen and mistakes occur; but if strict attention to business and personal supervision of the nursery operations will insure correctness, we think but few mistakes will occur; but, should any be found, we will cheerfully make all amends in our power for the same. Amongst the many hundreds of varieties in cultivation we have made a select list, and described such as we deem most worthy of cultivation, yet in the additional list will be found many valuable sorts that will be desirable for the amateur; but to the orchardist we would say, plant but few sorts if you are planting for profit, and let that selection be judiciously made. It is a grave error to plant very many sorts.

Now, all the region of the country east of the Blue Ridge, in proximity to railroads or steamboat navigation, might be very profitably employed for fruit-growing purposes. We would say to those in the tide-water region, plant early varieties, they will pay you the best; and to the people westward we would say, after supplying your local markets, plant mostly of winter apples and grapes—you will find it profitable to ship them to this and other markets. The question is often asked, Will not the markets soon be overstocked with fruits? We say emphatically, No! While the production of fruit has been greatly increased in the last twenty years, the demand has been greater than the supply. Much better prices are now obtained than ever before. The improved and increased facilities for canning and drying green fruits to be used out of season, as well as the increased use of the same by almost every family in the land, tends to create a demand that will hardly be supplied by the present generation.

That veteran pomologist, J. J. Thomas, says: "The cultivation of fruit has been retarded by a mistaken estimate of the time required for a young tree to come into bearing, but this error is fast giving way before skillful culture. It has become well known that he who plants trees plants for himself as well as for his children. Bad treatment may long retard the growth and bearing of a tree, but give it for a few years a mellow, clean and fertile soil, and the wide-spreading branches will soon bend under copious loads of fruit. To adduce instances: in a single garden apple trees, the fifth year from setting out, yielded a bushel each; peach trees the third summer bore three pecks; and a Bartlett pear two years from transplanting gave a peck of superb fruit. None of them were an inch in diameter when transplanted, nor was their treatment better than that which every good farmer gives his carrots and potatoes.

"The profits arising from the cultivation and sale of the best fruit are becoming well, understood by skillful planters. Even under ordinary management, good apple orchards yield more than the best farm crops. From fifty to one nundred dollars per acre is a common yearly return, while to those who give their orchards the best attention in culture and

pruning, and carefully thin out, assort, pack in the best manner and ship to markets where their reputation is known, the finest sorts have often yielded an annual return of two to three hundred dollars per acre. With such fruits as strawberries, grapes and pears, where more knowledge and skill are required in raising, picking and marketing, still larger profits have been obtained. Strawberries, as commonly raised, bring an annual return of two or three hundred dollars per acre; but the best managers, who obtain large and delicious fruit by high culture, clipping the runners, assorting and packing, and securing beforehand good markets, rarely fail of obtaining eight hundred to one thousand dollars. Ordinary varieties of grapes have commonly yielded, by good management, a net profit of three to five hundred dollars annually, except in unfavorable seasons, and some sorts a much larger sum. The pear crop, liable to many vicissitudes, has frequently yielded five hundred dollars, and sometimes even double this amount, and will doubtless continue to do so to those, who understand the selection of the most productive and healthy sorts and the proper treatment they require.

"It is not, however, merely as a source of income that the cultivation of the finer sorts becomes profitable. The family which is at all times supplied with delicious and refreshing fruit from its own gardens, has within its reach not only a very important means of economy, but of real domestic comfort. An influence is thus introduced of an exalted character. A tendency is directly exerted towards the improvement of the manners of the people. Every addition to the attraction of home has a salutary bearing on a rising family of children. The difference between a dwelling with well-planted grounds and well-furnished with every rural enjoyment, and another where scarcely a single fruit tree softens the bleakness and desolation may, in many instances, to a young man ust approaching active life, prove the turning influence between a life of virtue and refinement on the one hand, and one of dissipation and ruin from the effects of a repulsive home on the other. Nor can any man, even in the noon or approaching evening of life, scarcely fail to enjoy a higher happiness, with at least an occasional intercourse with the blossoming and loaded trees which his own hand has planted and pruned, than in the noise of the crowd and tumult of the busy world."

A change has taken place in the labor system of the Southern states, and with it comes a change in the pursuits of many of their people. Many are looking about undecided as to what they shall undertake. We believe that fruit-growing offers greater inducements than anything else. Under this conviction we have gone largely into the business ourselves, and say to others, "go and do likewise;" and if you give it proper attention, we will guarantee satisfactory returns.

Maryland is already noted for her extensive peach orchards, which are indeed a large and profitable interest in the state; yet, there is room to extend them far beyond their present proportions, and with great certainty of profitable results. Other fruits are very properly receiving more attention throughout the state.

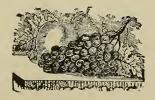
Virginia, from her climate, soil and geographical position, must at no distant date become famous for the products of her orchards; and whosoever does the most to bring this about must be looked upon as a public benefactor. To this end we aspire.

OFFICES:

#### FRANKLIN DAVIS NURSERY CO.,

N. E. Cor. Baltimore and Paca Sts., Balto., Md. 918 Main Street, Richmond, Va.

Baltimore and Richmond Nurseries.



#### To Correspondents.

In the transaction of any business, a mutual desire for mutual satisfaction between parties should prevail. Let us, then, ask of our patrons an observance of the following requests:

That all orders addressed to us be written out in a legible style, and the name in full, that no mistakes may occur.

That particular and plain directions be given how they wish their packages marked, and by what route sent, and to whose care consigned. When no route is designated, we will send by the one we deem most advisable; but let it be distinctly understood that we will, in no case, be responsible for any loss or damage that may occur after we have delivered them to the forwarders. They alone are responsible.

While we exercise the greatest care to have all our trees and plants true to name, well-grown, and packed in the best possible manner, and hold ourselves in readiness, on proper proof, to replace all trees or plants that may accidentally prove untrue to label, free of charge, or refund the amount paid therefor, it is mutually understood and agreed to between the purchaser and ourselves that our guarantee of genuineness shall in no case make us liable for any sum greater than that originally received for trees or plants that prove untrue. Our reputation for upright dealing, and the uniformly high standard of quality of our products, the result of a forty years' business career, is our only guarantee to our customers.

When orders are received specifying the kinds wanted, the purchaser will please say whether we shall fill up with other varieties, should some of those which he has ordered be exhausted. We will, so far as in our power, give him his choice; but when the varieties specified cannot all be furnished, or are known to be unworthy of cultivation, we will take the liberty of substituting others in their place, unless special orders are given to the contrary. When the purchaser is not well acquainted with the fruit by name, he would do well to leave the selection to us, briefly stating at what season he wishes the fruit to ripen; and in such case we will exercise our best judgment in making a judicious and profitable selection of the standard sorts and of good trees.

Prompt attention will be given to all letters requesting information, all of which should enclose a postage stamp.

It is expected that orders for trees from those with whom we have no acquaintance will be accompanied with the cash or a suitable reference.

Our terms are **invariably cash**, or a negotiable note of short time, satisfactorily endorsed, made payable at bank.

To all the points where the express companies have an office we can send trees marked C. O. D. This will save the purchaser, as well as ourselves, some trouble.

When the cash accompanies the order, no charge is made for packing.

From past experience we have learned that we cannot afford to delay collections, and must henceforth insist upon prompt payment. Our business is attended with heavy expenses, and we must have the cash to push it.

Trees, plants, etc., will be carefully taken up, each kind tied by itself and labeled, and the roots packed so as to carry safely.

A liberal discount will be made to nurserymen, or others wishing to buy to sell again.

#### Hints on Transplanting.

Transplanting.—The proper season for transplanting fruit trees is during the months of October, November and December, in the autumn; and February, March and April, in the spring; or at any time after the cessation of growth in autumn until they commence budding in the spring. The autumn is preferred, as giving the ground an opportunity to become firmly settled around the roots during the winter, so that the trees will be ready to grow off without interruption at the first impulse of nature in the spring. The ground should be well prepared by at least two good ploughings. Let sub-soil plough follow in the furrow of the other, loosening up the earth to the depth of twelve to eighteen inches. We consider this much better than the usual mode of digging deep holes, which in tenacious clay will hold water like a basin, to the injury of the tree. If the ground is not in good condition, it should be made so by the application of a considerable portion of well-decomposed manure, or fertilizer of some substantial kind. Most soils would be benefited by the application of

a good coat of lime or wood-ashes, which should be well mixed with the soil. When the ground is prepared, dig the holes sufficiently large to admit the roots, giving them their natural position as near as practicable. Use the surface soil for filling in, having it first well pulverized. If it is not rich, add good mould to make it so; that found immediately under the leaves in the woods is very good for the purpose. Avoid deep planting, for it is decidedly injurious to the tree, and when excessive, may cause its death, or a weak and feeble growth. Plant no deeper than it stood in the nursery.

PREPARING THE ROOTS.—Immediately before planting, all the bruised or wounded parts, where cut with the spade, should be pared off smoothly, to prevent decay, and to enable them to heal over by granulations during the growth of the tree. Then dip them in a bed of mud, which will coat over every part evenly, and leave no portion in contact with the air, which, accidentally, might not be reached by the earth in filling the hole. The use of water in settling the earth among the roots will be found eminently serviceable. Let there be a few quarts poured in while the hole is filling up. If the trees have been out of the ground for a long time, and have become dry and shriveled, they should be immersed in water twenty-four hours before planting. Fruit trees sometimes remain with fresh and green branches, but with unswollen buds, till mid-summer; instead of watering such at the roots, let the body and branches be wet every evening regularly, about sundown, with a watering pot; this will, in nearly all cases, bring them into active growth.

SHORTENING-IN THE BRANCHES.—However carefully trees may be taken up, they will lose a portion of their roots, and if the whole top is allowed to remain, the demand will be so great upon the roots that in many cases it will prove fatal to the tree. To obviate this, then, it becomes necessary to shorten-in the branches, which should be done at the time of planting, and in a manner to correspond with the loss of roots. If the tree has lost the greater portion of its roots, a severe shortening-in of the branches will be necessary; if only a small portion of the roots has been cut off, more moderate pruning will be sufficient. Particular

attention to this matter will save many trees that otherwise would perish.

MULCHING.—This is another very important matter, particularly in this climate, where we frequently experience severe midsummer droughts. It consists in covering the ground about the tree with coarse litter, straw, leaves, shavings, or anything that will shade the ground and prevent evaporation. It should be done early in the spring, and will, in most cases, obviate the necessity of watering at the root. We cannot too earnestly insist upon the momentous importance of mulching. We have known orchards planted, where more than half the number died when mulching was neglected; while, on the other hand, we have witnessed trees set out under the same circumstances and in like manner, and treated similarly, save only that they were well mulched, and not a single one was lost; they not only all grew, but made four times the growth of the others.

Instead of staking, let the earth be banked up around the tree, so as to keep it erect until it gets sufficiently rooted to stand without support.

CULTIVATING.—When the transplanting is finished, many persons are under the impression that their work is done, and they can do nothing more for the tree. But this is a very mistaken idea. It is a very important matter to have them well planted, but doubly important to have them well cultivated afterwards. Enveloped in weeds and grass, what plant can flourish? What farmer would think for an instant of raising a crop of Indian corn in the thick and tall grass of a meadow? Such an idea, he would at once say, would be preposterous. We will say that it is not more impossible than the idea of raising a thrifty orchard under the same treatment. It is indispensably necessary that the ground should be well cultivated to obtain fine fruit. From the neglect of this arises so much of the dissatisfaction of tree planters. Give to your trees for a few years a clean, mellow and fertile soil, and they will bend under copious loads of fine fruit, and yield to the cultivator his reward. One experiment only is enough to convince any one of the advantage of good culture. Dwarf Pears, more than any other trees, require a deep, rich soil, and clean cultivation. In cultivating, great care should be taken not to injure the trees by rubbing the bark off. The best crops for an orchard are those requiring summer culture—such as potatoes, beans, etc. Winter crops are little better than no culture. Rye is decidedly injurious.

PRUNING.—We recommend the greatest care and moderation in this operation, believing, as we do, that upon the whole there is more injury done by the use of pruning instruments in unskillful hands than would result from its entire neglect. Some of the objects sought are

to diminish the thick growth, to increase the vigor of the branches, to admit light and air, and to form a well-shaped top. We are opposed to the too common practice of trimming up trees as high as a man's head, leaving a long, naked stem exposed to the ravages of insects and the deleterious effects of sun and wind, as well as other sudden and extreme changes of the atmosphere. If a tree be allowed to branch near the ground, its danger from these ills will be lessened, and it will grow much stronger and faster, bear more fruit, which will be more easily gathered, less liable to be blown down, and we may add, better every way. If watched closely when young and growing, it will never become necessary to take off large limbs. Occasional pinching or cropping off of the ends of branches to give the tree proper shape, and removing those that cross or crowd each other, will be all that will be needed by most trees. Peach trees would be greatly benefited by an annual shortening-in of the branches, say one-half of the previous year's growth; this may be done at any time after the fall of the leaf until the buds commence swelling in the spring; they never need any thinning-out of the branches. Dwarf Pears also need careful attention annually, to keep them in shape, by cutting back the rampant and straggling shoots; they should be pruned down instead of up, never allowing them to grow high, or the top will become too heavy for the roots, and increase the danger of blowing down.

Our space is too limited to give instructions on pruning the grape. To those wishing information on this subject, as well as more detailed instruction in fruit-culture generally, we commend the works named below, which can be had of the principal booksellers:

FULLER'S GRAPE CULTURIST.

FULLER'S SMALL-FRUIT CULTURIST.

DOWNING'S FRUITS AND FRUIT TREES OF AMERICA.

THE AMERICAN FRUIT CULTURIST. By J. J. Thomas.

AMERICAN POMOLOGY. By Dr. John A. Warder.

BARRY'S FRUIT-GARDEN. By P. Barry.

QUINN'S PEAR CULTURE FOR PROFIT.

PEACH CULTURE AND DISEASES. By John Rutter.

We also refer, for much useful information on these subjects, to the many horticultural and pomological publications in different parts of the country.

## Treatment of Trees Coming to Hand Out of Season.

It sometimes happens that trees are received in a frosted state; but if they are properly managed they will not be injured by it. Let the package be put, unopened, in a cellar, or some such place—cool, but free from frost—until it is perfectly thawed, when it can be unpacked, and either planted or placed in a trench until convenient to plant. Trees received in the fall for spring planting should at once be unpacked, and a trench dug in a rather dry, sheltered position, when the roots should be well covered. So treated, they will be preserved without the least injury until spring. If they should come to hand late in the spring, and appear much dried, plunge the bundle into a pool of water, there to remain for twenty-four hours, or more if very much wilted. After this it should be unpacked, and the roots and half the stems should be buried in soil made quite wet by watering; there let them remain until the bark expands to its natural fullness, when they may be taken up and planted as before directed, and we will guarantee you a good reward for your labor.

#### The Growth of Trees.

As many persons are unacquainted with the varied growth of the different varieties of fruit trees, and are dissatisfied with the difference in appearance of their trees, we will briefly give a few examples, thereby hoping to avoid a most unpleasant difficulty sometimes taking place between the inexperienced purchaser and the nurseryman. For instance: Were a customer to order a lot of apple trees, naming amongst them American Summer Pearmain, Hall, Newtown Pippin, Porter, etc., he would get some of the finest varieties under culture, but the trees would be small; consequently, the nurseryman must suffer a severe lecture—and, next, his neighbors would be advised not to patronize that man, for his trees are too small. Should he order a lot of Summer Sweet Paradise, Summer Queen, Smokehouse,

Rhode Island Greening, Winesap, and Roxbury Russet, he would get large, rapid-growing trees and choice fruit, but so crooked and twisted as again to displease the purchaser. But should he send for Bullock Pippin, Baltzley, Paradise, Baldwin, Horse, Yates, Domine, etc., he would receive large, well-formed trees, which would please his eye, and no doubt cause him to advise his neighbors to purchase there. Yet some of the fruit would be quite inferior to that of the other lists.

Then let us advise purchasers to study the habit of growth of the different varieties they order, that they may not meet with disappointment by expecting what they cannot obtain. It is a lamentable fact that some nurserymen look too much to the growth of a tree; they cultivate it more for its prepossessing appearance than the good qualities of its fruit, and discard some of the most valuable sorts on account of their slow and crooked growth. We hope the day is not far distant when purchasers will be familiar with the varieties they order, as well as with their habit of growth. So long as they continue to be guided in making selections by beautiful names and handsome-looking trees they will meet with disappointment.

#### Proper Age and Size of Trees for Transplanting.

A very decided change has taken place in the opinion of a majority of planters as to the proper size of trees for removal to the orchard. At one time they must have trees eight to ten feet high; large enough to bear fruit at once. Experience has taught them that a small, young tree, set at the same time, will in a few years overtake and pass the large one, and continue more vigorous and productive. It is in the vegetable as in the animal kingdom. Let an aged animal have a limb broken, or receive a severe cut or bruise, and it will be long before it fairly recovers from the injury; but let a young one receive the same injury, and it will soon recover from the effect; so also with a young plant or tree; it possesses more vitality, more recuperative power, than the old one.

Large trees are necessarily or unavoidably more injured in digging than small ones. The latter can be moved with their system of roots almost entire. This is one reason why there is less risk in planting small trees. The orchardist, too, has them more under his control—can better shape the head to please the fancy. We extract the following from the writings of that eminent pomologist, Dr. John A. Warder:

"Peaches should always be removed at one year from the bud; plums and dwarf pears will be ready to grow off at two years from the bud or graft; so with apples and cherries. But many persons, purchasers and sellers, prefer large trees, and they recommend that the trees should remain one, two, or even three years longer in the nursery. Others, a new school of planters, prefer to set out the maiden tree in most of the species above named, except some very feeble-growing varieties, that will scarcely have attained sufficient size to risk in the orchard. The nurseryman should beware of keeping his trees too long on his hands; they may become unprofitable stock, and are sure to require much more labor in the digging and handling. The purchaser is his own master, and his tastes and wishes must be consulted; if he wants large trees, by all means let him be indulged. He will have to pay in proportion; he will have more wood for his money; more weight to carry or transportation to pay for; more labor in planting, and vastly increased risk of the life of his trees; but let him be indulged with his five-year-old trees. While his neighbor, for a smaller sum invested, with less freight, less wood, less labor, and infinitely less risk, will plant his maiden trees, and five years hence will market more fruit."

Another says: "Six years ago I concluded to plant an apple orchard. I went to the nursery, intending to get three or four-year-old trees, but was too late—they were most all sold; so I bought 450 two years old, and a few three years. I planted them, with the help of the nurserymen, and only lost one tree. Pleased with my success, the next spring I planted 275 more; this time I got those three years old, that looked more like trees, from the same lot as the first; of these I lost about 20—gave them the same care and cultivation; and to-day any one seeing them would suppose the first planting one or two years the older; and the three years old, planted the first year, are not equal to the others. Not being quite satisfied, the next year I planted 1,000 four years old. I saved the most of them—that is, they just lived, that's all, and are now large, awkward-looking, stunted trees, with no shape or symmetry. I shall have to wait until they make a growth, and then cut it half away,

and then they will not suit me. My trees first planted are fine in form and thrifty, and this year I expect from them a good lot of apples, while the others have no appearance of fruit."

While we have a desire to please our customers, we do not want to do it at their expense. We want the result to be to their advantage. We, therefore, with the light before us, unhesitatingly recommend planting young trees. They do not make so much show at first, but in less than five years the result will be highly gratifying to the planter.

#### Distances for Planting.

Standard Apple not less than	33 feet apart e	ach way.
	20 ''	"
Duke and Morello Cherries	18 ''	
Standard Plum, Peach, Apricot and Nectarine 15 to 2	20 ''	"
Quince	12 "	"
Dwarf Pear, Apple and Cherry	10 ''	"
Dwarf Cherries of the Dukes and Morellos	8 "	"
Currants, Gooseberries and Raspberries 4 to	5 " .	6.6
Grapes	:0 "	"

## Number of Trees on an Acre at Various Distances.

3	feet apart	each way																	. 4	1,840	
4		4.6																	. 2	2,722	
5		4.6																	. ]	1,742	
6																			. ]	1,210	
8		4.6																		68o	
10		6.4																		435	
12	,,	6.6																		302	
15	"	4.4																		193	
18		4.4													. ,					134	
20	, ,,	4.4																		108	
25	.,	6.6		i																69	
30		4.4															-			48	
33		4.6																		40	
35		6.6																		35	
40	,,	6.6																		27	
45		4.6	i					 						 						21	
50		"						 												17	



## Fruit Department.

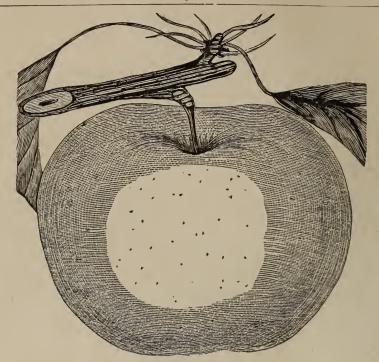
#### SELECT APPLES.

"The Apple," says Downing, "is the world-renowned fruit of temperate climates." Although not possessed of the richness and melting and delicious qualities of the Pear or Peach, yet, from its adaptation to a great variety of soils, together with the long time through which many varieties can be kept in a fresh state, its various uses, and the profits accruing from its cultivation as a market fruit, it must be regarded as holding the very first rank among fruits. There is no country in the world where it attains such perfection as it does in this, nor where its cultivation can be made more profitable than in Virginia and Maryland. Many fine varieties have been introduced from abroad, but those originating in our own soil fill, in the main, the pages of this Catalogue. We have endeavored to cull from the hundreds of names such varieties, mainly, as are best adapted to the middle and southern portions of the Union, although many of them succeed well in all parts of the country. It is evident that some Apples that are highly esteemed in one locality are worthless when removed to another soil or climate of a different character; and hence has come so much disappointment and loss to those who have planted Northern Winter varieties, which for the most part become Fall Apples when brought here—our long, hot summers causing them to speck and drop early in the fall, even before they are ripe or fit for use. Their summer and some of their fall varieties succeed very well; a few of their Winter Apples also do well; but these are the exception; the majority fail, and are not worth planting. On the other hand, as we carry the Southern Winter varieties northward, their season of maturity becomes later and their time of keeping is extended to a later period. We have now under cultivation several winter varieties of Southern, origin which we regard as valuable acquisitions. They are fruits of the first quality, and of course will be reliable keepers here. Some of the very best sorts have originated in this state, and we are aware that there are yet valuable ones deserving extensive planting, and we hope those who have them in possession will bring them to public notice, that they may not be lost.

We have for some time been aware that early Apples would prove to be one of the most profitable crops in Eastern Maryland, Virginia and North Carolina, wherever facilities are offered for convenient shipping to Northern cities. Time fixes this conviction more deeply in our minds, and the products of a few orchards that have been sent to these markets have encouraged a great spirit for planting; but the orchardist is at a loss to say what varieties to plant, knowing, as he does that a great error may be committed in selecting sorts that will not do well. First, he wants those that bear well; secondly, a fruit of handsome appearance; and thirdly, one that will carry well to market. These qualifications are necessary to a profitable market fruit.

The following very pertinent remarks on this subject we copy from Dr. John A. Warder's excellent work on Apples:

"Every orchard-planter who examines the extended varieties of fruits presented to him in the books and by the nurserymen must feel greatly embarrassed when he comes to select the varieties for his own orchard. Almost every one in the long lists is recommended for some good quality, and the number of best, which he is apt to conclude means indispensable for him, is wonderfully large. Some persons are bewildered by the array presented in the catalogue, and fall back upon their own slender stock of information, selecting only one well-known variety; but most persons commit a far greater fault by attempting to grasp all the varieties that are offered and commended, which is very well for some one person in every region to do. It is a labor of love for the benefit of his fellow-townsmen; but it is far better for him who is about to plant an orchard, either large or small, to determine which varieties are best adapted for his purpose. For the small planter, who is providing for the wants of his family, a number of varieties that will ripen in quick succession will be best,



Early Ripe Apple.

and the sorts should be selected with regard to their qualities for household use. The planter of extensive commercial orchards, on the contrary, will need but a limited number of varieties, which should be selected with a view to the wants of the market he intends to supply, as well as to the productiveness of the fruit and its ability to bear transportation. While it is desirable to have but a few well-selected varieties in such an orchard, it must be recollected that even when there is a general failure of the crop there are always some sorts that bear fruit, and this is an argument against making the list too small.

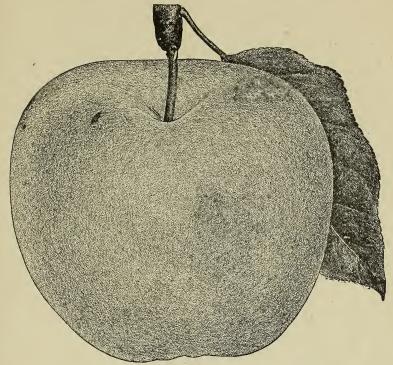
"All attempts to make out lists of fruit for general cultivation over the great extent of our country have been abortive. State and regional lists are made by the pomological and other societies, which are useful in rendering approximate information; but, at last, every planter should observe the fruits that succeed in his own neighborhood, and upon soil similar to his own, and select his varieties for planting accordingly.

"In making up our judgment of the excellence of a fruit, there are many elements that enter into the question of what constitutes a good Apple, and so much depends upon the tastes of the individuals who have the question to decide, that at last every one is left to make up his own mind as to what will be the best for his particular case."

Our descriptive list embraces the best and most popular varieties known. Of course, it runs into too great a variety for any one orchard for profit; besides, there is probably not a spot in the country where they would all flourish—but the latitude of our trade not only admits of but demands a large list to supply the wants of the different sections of the country. After an experience of forty years in the nursery and fruit-growing business, we have, with great care, made the following selections, from which we trust all our patrons can supply their wants, and that they will be aided in making their selections by the lists given for special selection.

#### SUMMER VARIETIES OF APPLES.

American Summer. (American Summer Pearmain.) Medium size, oblong; nearly covered with streaks and dots of red; flesh tender, juicy and rich, subacid flavor, fine; tree a slow grower, but bears early and abundantly; continues in use for several weeks; one of the very best apples. Last of July to August.



Yellow Transparent Apple. (See page 14.)

- Bough. (Sweet Bough.) Large, roundish, sometimes conical; pale yellow; flesh white, very tender, with an excellent, sweet flavor; tree moderately vigorous and very productive; the best sweet apple of its season. July.
  - Benoni. Medium size, round; deep red; flesh yellow, tender, subacid; an excellent apple. July.
  - Carolina June. (Carolina Red June.) An early bearer and very productive; fruit medium size, dark crimson; flesh white, very tender, fine-grained, juicy, subacid. June and July.
  - Early Harvest. Rather large, round; yellow; flesh nearly white, tender, juicy, crisp, with a rich, sprightly, subacid flavor; tree a moderate grower and very productive; taking all its qualities into consideration, this has no superior among early apples. June and July.
  - Early Ripe. This fine apple, coming as it does immediately after the Early Harvest, fills a want long felt by the orchardist. Its large size, handsome appearance and good bearing qualities combine to make it the most profitable market variety of its season; the tree is hardy and of vigorous growth; fruit large, yellowish white; flesh white, juicy, subacid; fine for the table or for cooking. First of July. (See illustration, page 12.)
  - Early Strawberry. Medium size, nearly covered with red; flesh tender, with a mild, fine flavor; tree a moderate grower and good bearer. July and August.
  - Fourth of July. A German apple, introduced by C. F. Jaeger of Columbus, O. Very valuable for cooking and market; fruit medium, roundish oblate, conical, slightly ribbed, whitish yellow, striped and splashed with bright red; it has been thoroughly tested, and found to be one of the very best early apples. Matures early in July.
  - Family. A native of Georgia. Fruit of medium size, yellowish, shaded, striped and splashed with dull red, and sprinkled with large, light dots; juicy and highly flavored, pleasant subacid. Commences to ripen in August, and continues for six weeks.
  - **Hightop Sweet.** (Sweet June.) Medium size, greenish yellow; flesh white, fine-grained, tender and juicy. June and July.
  - Horse. Large yellow; flesh coarse, subacid; fine for cooking and for market; tree vigorous. August.
- May Apple. Small, round, pale yellow, subacid; flavor poor; its chief value is in its early ripening, being the earliest known variety. June.

Red Astrachan. Rather large, approaching conical; covered with deep crimson, over-spread with a thick bloom; flesh juicy, rich, acid; from its earliness, handsome appear-ance, its excellent culinary qualities, and the vigor of the tree, it is worthy of general cultivation. July.

Rainbow. A "barrel filler" from Missouri. Very promising summer apple; some claim that it is the best of its season. Very large, conical; yellow, striped and splashed scar-let and red; flesh firm, yellow and juicy. August and September.

Summer Rose. (Simm's Harvest.) Rather small, oblate, yellow, with red cheek; flesh very tender, crisp, mild, subacid, juicy, excellent; continues in use for a month or more.

June and July.

Large, conical, striped with red; flesh yellowish, acid, with a very Summer Queen. rich, high flavor; fine for culinary purposes. July and August.

Summer Sweet Paradise. Large, roundish, pale green, sometimes tinged with yellow

in the sun; flesh tender, crisp, very juicy and sweet. August. Summer Hagloe. Large, roundish, oblate, striped with light red on yellow ground; flesh white, rather coarse; flavor acid; fine for cooking and valuable for market. July

and August.

Tetofsky. A handsome Russian variety, very hardy; tree vigorous and very productive; comes into bearing early; fruit medium size; skin yellow, striped with red; flesh white, fine grained, acid. July.

William's Favorite. Originated at Roxbury, Massachusetts; highly esteemed; large.

oblong, rich; moderate grower and good bearer. July and August.

Yellow Transparent. A Russian apple of great value; above medium size, roundish oblate, slightly conical; skin a clear white, changing to a pale yellow when fully matured; a remarkably early bearer; very prolific; tree a vigorous and upright grower; gives general satisfaction; does well everywhere, and ripens among the earliest. July.

#### AUTUMN APPLES.

Alexander. Russian origin. A very large and beautiful red apple of medium quality; tree hardy but moderate grower. September and October.

Bailey Sweet. Origin, New York; large to very large; surface smooth, mixed and striped deep red; flesh yellow, tender, fine grained; flavor very sweet and rich; quality good; also a valuable apple for stock. October.

Beauty of Kent. Very large, roundish, striped with red; flesh juicy, crisp, tender, subacid; a showy apple, but a poor bearer. September and October.

Baltzley. Large, oblate; skin clear, pale yellow, with sometimes a blush next to the sun; flesh tender, juicy, sweet, with a good flavor; tree an early and good bearer; a first-rate cooking apple; deserves a place in every orchard. October.

Buckingham, or Winter Queen. Large to very large, greenish yellow, mixed and striped with crimson or purplish red; flesh yellowish, breaking tender, juicy, mild, sprightly, subacid; a handsome, healthy tree; comes in bearing very early, and is very productive. This apple is cultivated over a great portion of the Southern and Western states, and is everywhere very profitable and popular, succeeding in almost every locality. We consider it one of the most valuable sorts. October to January.

Chenango Strawberry. (Sherwood's Favorite.) Large oblong, red and yellow; handsome; valuable for table or market. Strong, upright grower. September.

Catline or Gregson. Origin Maryland. Below medium size, oblate; yellow, bright red cheek, with stripes; flesh tender, rich, juicy; much esteemed where well known. October to December.

English Red Streak. Medium size; yellow, streaked with dark red; flesh firm, yellow, fine grained, rich and juicy. A good fall apple. September to December.

Flory's Bellflower. (Flory.) Origin Ohio. Tree upright grower; abundant bearer; fruit medium, roundish, conical; rich yellow with small patches of russet; tender, yellowish, juicy; subacid; good. October and November.

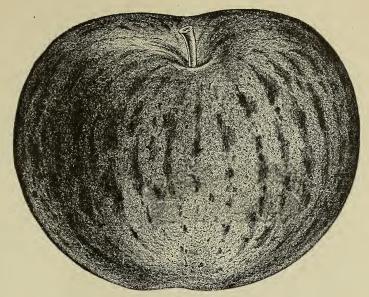
Fall Pippin. Very large, roundish; skin smooth, yellowish green, becoming rich yellow when ripe; flesh yellowish, firm, becoming tender, rich, aromatic, excellent; valuable for cooking and market; succeeds well everywhere. September and December.

Gravenstein. Large, roundish, striped with red; flesh tender, juicy, very rich, subacid, high flavor; productive, handsome and excellent; fine in all localities. August.

Golden Sweeting. Rather large; rich yellow; flesh juicy, tender and sweet.

Hewe's Virginia Crab. A famous cider apple; immensely productive; fruit small, striped; flesh firm, yellowish, juicy; flavor acid, rich; must very heavy; cider can be kept in a sweet state for a long time; should be in every orchard from which a barrel of cider is intended to be made. October to December.

Jefferis. A fair and handsome fruit of excellent quality, in use all of September; fruit medium, oblate; yellow, shaded and splashed with crimson, and thickly covered with large whitish dots; flesh white, tender, juicy, with a rich, mild, subacid flavor; very good. September.



Oldenburg Apple.

Jersey Sweeting. Medium sized, striped with red; flesh whitish, very sweet, juicy and tender; flavor very good; succeeds well in all localities. September and October.

McMahan. From Wisconsin. New seedling. Large to very large; beautiful glossy white, often with delicate crimson cheek; flesh white, rather fine-grained, juicy, with lively tartish flavor; extra for cooking and dessert. If picked early, keeps into the winter; tree very hardy, early, regular and prolific bearer. Fall.

Maiden's Blush. Rather large, oblate, smooth, regular, with a fine, evenly shaded red cheek, or blush on a clear pale yellow ground; flesh white, tender, sprightly, with a pleasant, subacid flavor. This variety forms a handsome, rapid-growing tree, with a fine, spreading head, and bears large crops. August to October.

Ohio Nonpareil. Among the best dessert apples of the season. It is declared to be "better than the best." Fruit large to very large, oblate, very handsome; yellow, covered with bright red; flesh yellowish, tender, fine-grained, juicy, subacid; first quality for table or cooking. September to December.

Oldenburg. (Duchess of Oldenburg.) A Russian variety of very handsome appearance and great value; tree very hardy, vigorous, and an abundant bearer; fruit medium to large, golden yellow, nearly covered with streaks of crimson; flesh tender, juicy, pleasant; valuable for the market. August.

Porter. Rather large, regular, oblong, tapering to the eye; skin bright yellow, sometimes a dull blush in the sun; flesh tender, rich, subacid; flavor fine; fair and productive; deserves general cultivation. August and September.

Red Bietigheimer. German origin. Fruit large to very large, roundish, inclining to conical; skin pale, cream-colored ground, mostly covered with purplish crimson; flesh white, firm, subacid, with a brisk, pleasant flavor; tree a vigorous grower and abundant bearer; very handsome apple, and worthy of general cultivation. September.

Rebel. This charming apple comes from Virginia. It is large, beautiful and high-flavored; the color is deep red, covered with a bloom; flesh yellowish and rich; subacid; attracts much attention on the market stand; a very valuable table apple. Oct. to Dec.

Rambo. There is not, perhaps, another apple named in this catalogue so widely disseminated, or which was once so generally esteemed as this; but recently, in some localities, the trees have become less vigorous than formerly; they grow well until three or four years old, then, from some cause unknown to us, commence declining, and do but little good afterwards; but where it still succeeds it is one of the best apples, and should be planted. Fruit above medium size; skin smooth streaked with dull yellowish red; flesh greenish white, very tender, with a rich, spicy, subacid flavor; very productive. October to January.

Summer Rambo of Pennsylvania. Very large, striped with red, on yellow ground; flesh mild, subacid, with an agreeable flavor. September.

- Smokehouse. Fruit large, oblate, striped with red on yellow ground; flesh yellowish white, firm, juicy, crisp and rich, with a fine, aromatic, subacid flavor; unsurpassed for culinary purposes; productive; should have a place in every orchard. September to December.
- Stump. A decided acquisition to the list of profitable apples. Originated near Rochester, N. Y. Fruit medium size, conical; skin yellow, striped and shaded with light red; flesh firm, juicy, tender, subacid; uniform size and fine appearance. September and October.
- Western Beauty. (Big Rambo, Ohio Beauty.) Very large; pale yellow, striped and splashed with bright red; flesh yellow, tender, juicy; never water-cored and not disposed to rot; one of the best fall apples. September to December.

#### WINTER APPLES.

Abram. (Red Abram, Father Abram.) Fruit below medium size, yellow shaded, and splashed with red, dotted; flesh white, tender, subacid. Small size and dull color detract from its value as a market fruit, yet its pleasant flavor, combined with its long keeping, makes it a desirable sort for the South. January to May.

pemarle Pippin. We consider this, Yellow Newtown Pippin and Brooks' Pippin identical. Perhaps no apple stands higher in the market than this, or brings as high a Albemarle Pippin. price; others may be more profitable to the grower. It succeeds finely in the Piedmont region and in many parts of the valley of Virginia, though in poor, cold soils it will not succeed. It needs a deep, warm soil to bring it to perfection. Where it does well, we would still advise planting it largely for market. Fruit large, round, lop-sided, ribbed, and irregular; surface smooth, yellowish green, sometimes bronzy, becoming yellow when ripe; flesh yellow, firm, brittle, juicy; flavor acid, rich, agreeable; tree a slow grower in the nursery; does not succeed so well below the Piedmont country. January to April uary to April.

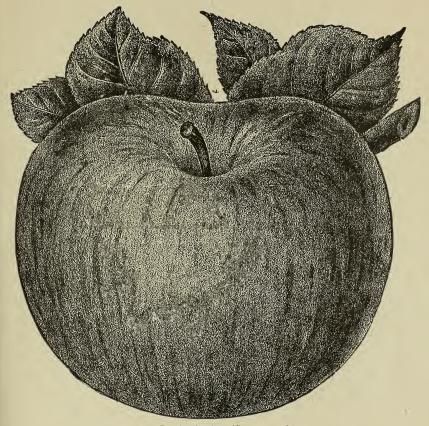
American Golden Russet. (Bullock's Pippin or Sheep-Nose.) Small, roundish ovate; skin dull yellow, with a very thin russet; flesh yellowish, very tender, juicy, with a mild, rich, spicy flavor; very productive. October to January.

Bellflower. Large, oblong, ovate; skin pale yellow, with sometimes a blush; flesh very tender, fine grained, crisp, juicy, acid, becoming subacid; does not succeed in tidewater, nor south of James river, except in the mountain country. October to January.

- Baldwin. Large, roundish, narrowing a little to the eye; skin yellow in the shade, but nearly covered and striped with red and orange in the sun; flesh crisp, juicy and subacid, rich; tree a vigorous grower and bears abundantly; succeeds well in Western Maryland and the mountains of Virginia, but drops its fruit too early in or near the tide-
- water section. October to January—later in the mountains.

  Bentley's Sweet. Supposed origin, Virginia; fruit medium, roundish, flattened at ends, sometimes slightly oblique, and sometimes sides unequal; pale, yellowish green, shaded with pale red, and moderately sprinkled with light and brown dots; flesh fine, whitish, compact, sweet, somewhat honeyed flavor; tree moderately vigorous, hardy, good bearer and keeper; very good. January to May.
- Bonum. Large, oblate, color light to dark red; flesh yellow, firm, breaking, fine-grained; flavor rich, subacid, first quality for dessert; a most excellent apple; originated in North Carolina. Deserves more general attention. October to January.

- Buncombe. (Red Winter Pearmain, Red Lady-Finger, Red Fall Pippin, Meigs, etc., etc.) Tree a strong, thrifty grower and great bearer; fruit large, yellowish white, mostly covered with red; flesh whitish yellow, rich, juicy, subacid, and very fine. November to February.
- Bullock Pippin of Pennsylvania. (Ewalt.) Large and handsome; yellow, with bright blush in the sun; flesh tender, fine grained; flavor acid, sprightly; bears well; a handsome market sort. November to February.
- Ben Davis. Originated in Kentucky; tree remarkably healthy, vigorous, and an abundant bearer; fruit large, handsome, striped; flesh whitish, tender, juicy, subacid; a very profitable market variety; should be in every orchard. Keeps till midwinter or later.
- Berry Red. A chance seedling from the farm of John Berry, of Meadow Creek, Ky. Large to very large; color, dark, bright, shining red; form oblate; flesh cream color; quality good, flavor excellent and retained through its long keeping season; subacid, rich, juicy. As a market variety and long keeper it is second to none; an enormous bearer. In 1872, 47 bushels were picked from the original tree, and in 1874 over 76 bushels. Many years it has averaged 40 bushels. This is a noble winter apple, and deserves a place in every collection.
- Babbit. (Western Baldwin.) It is claimed to be "the coming apple." Originated in Tazewell Co., Ill.; a seedling of the Ironclad, Eastern "Baldwin," and promises to equal its parent. Fruit larger than the Baldwin, shape very similar, but with more red; especially valuable for market and cooking. Season first of October to April.
- Black Warrior. Above medium size; green; fine quality and keeper. A first-class winter apple. Good bearer from October to March.



Ben Davis Apple. (See page 16.)

Belle de Boskoop. Large; yellow splashed with red on sunny side, sometimes slightly russeted; flesh firm, subacid; quality good and late keeper. December to March.

Cannon Pearmain. Medium size, round, oblong or ovate, shaded and striped with red; flesh yellow, firm; flavor mild, subacid; a good bearer, and valuable for marketing; deserves extensive planting in the South. January till April.

Carolina Greening. (Southern Greening, Yellow Crank, Green Crank, Green Cheese, Southern Golden Pippin, Green Skin, etc., etc.) Medium size, greenish yellow; flesh yellowish white, tender, crisp, juicy and rich; subacid; productive; keeps well.

Carter. (Magnum, Fall Cheese, Cheese, Johnson's Favorite, etc.) Medium sized; striped and splashed with red; flesh yellow, tender, juicy, mild, subacid; tree thrifty and productive. October to January.

Cooper's Market. Medium size, conical, red; fine keeper; very hardy, slender grower; productive. December to May.

Dickerson. From Chester Co., Pa. A seedling of Yellow Bellflower. Medium to large; yellow, almost covered with streaks of deep red; flesh subacid and juicy; heavy and annual bearer. One of the best new apples. January to March.

Delaware Late Winter or Lawver. A valuable winter apple, especially in the South. Strong grower and abundant bearer; fruit medium to large, bright red, fine texture, subacid, juicy; long keeper. It promises to gain the standing in the South that Baldwin has in New England and Northern Spy in western New York. January to March.

**Domine.** Large size, flat, striped with red; flesh white, juicy, firm, mild, subacid, sprightly, pleasant flavor; keeps till midwinter; a rapid grower and prodigious bearer. This variety is well deserving of extensive cultivation.

**Etowah.** Resembles Shockley, but better colored; fine-flavored; quality good; a good keeper. November to March.

- **Esopus Spitzenburgh.** One of the standard Northern winter apples, but not valuable here on account of the fruit specking on the trees; besides, it is a poor bearer.
- Fallawater. Large, roundish, slightly ovate, conical, very regular, smooth; skin yellowish green, with a dull red cheek; flesh greenish white, fine-grained, with a mild, slightly subacid flavor; tree a strong grower and good bearer; fruit uniformly fair; highly deserving extensive cultivation. November to February.
- Fameuse. (Snow Apple.) Medium size, deep crimson; flesh snow-white, tender, melting and delicious; strong grower; dark wood. Valuable for both dessert and market; does best in the North. November to January.
- Gibbs. A seedling from Delaware. Medium to large; white, shaded with brown; mild, subacid; one of the very best keepers, often good until June. December to April.
- Gilmore. Originated in Rockbridge Co., Va., and named for the introducer. Large, red winter apple; first-class keeper; valuable for market. The parent trees bore 35 bushels in 1885. December to March.
- **Gano.** (Red Ben Davis.) Fruit and tree closely resemble the well-known Ben Davis. but more highly colored; yellow, nearly covered with dark red; very handsome, large: flesh pale yellow; mild subacid. Season with Ben Davis. A good keeper.
- Gideon. Medium to large; rich golden yellow, with handsome blush on sunny side; flesh subacid, juicy, excellent; tree very hardy; an early bearer. November to January.
- Grindstone or American Pippin. Medium size, oblate; color light, dull red on dull green; flesh white, very firm, mild, subacid flavor; its chief merit is in long-keeping, which may be extended to July; tree a crooked, straggling grower.
- Grimes' Golden. A native of Brooke Co., West Va.; an apple of the highest quality. Dr. Warder says: "Too good for aught else but the dessert." Medium to large; flesh yellow, subacid, aromatic, spicy, rich, refreshing; tree hardy, vigorous and productive. January to March.
- **Gloria Mundi**. Very large, roundish, oblate; skin greenish yellow; flesh coarse, tender, with a pleasant acid flavor; unproductive; cultivated on account of its very large size. October to January.
- Horn. (N. C. Vandever's.) Medium, flat or conical; green with red cheek, dark crimson in the South; juicy, rich. Ripens in November, and will keep until March.
- **Hubbardston Nonesuch.** Origin Massachusetts. Fruit large, handsome, round, tapering both ways from the middle surface; yellow, covered with mixed red and broken stripes; flesh yellow, juicy, tender, with fine, rich flavor. Deserves general cultivation; yaluable for market and dessert. October to January.
- Ivanhoe. A chance seedling from Albemarle Co., Va. It has proved, after thorough testing of many years, to be a very valuable apple. Tree hardy and very productive: bears young, sometimes at two years, in the nursery row; bears every year, and will keep until apples come again, and are plentiful; above medium size; yellow, with slight blush sometimes in the sun; the flavor is excellent, crisp and sprightly; of the Pippin type, resembling the Albemarle. A valuable winter apple.
- Johnson's Fine Winter or York Imperial. Medium size, truncated oval, angular; skin greenish yellow, nearly covered with bright red; flesh tender, crisp, juicy, aromatic; an enormous bearer, and hangs well on the tree; it is also a good keeper, retaining its flavor to the last. We cannot say too much in favor of this apple; all things considered, it is scarcely second to any in the catalogue as a profitable orchard variety. February to April. (See engraving, page 19.)
- King of Tompkins County. Very large, red-striped, handsome and of fine quality; a splendid apple North, but not valuable here. November to February.
- Kaighn's Spitzenburgh. Large, yellow, striped with crimson; flesh white, subacid, juicy; a good bearer; much more valuable here than the Esopus Spitzenburgh. December to February.
- Kinnard's Choice. This splendid apple originated in Tennessee; wherever known it is spoken of in the highest terms. Tree vigorous, and bears very young; fruit medium to large, highly colored, red; flesh yellow, fine-grained, tender, rich, Juicy; keeps well. November to March.
- **Longfield.** New Russian kind, imported by the U. S. Government. The only one of a large importation that is a winter apple. Tree a free-grower, early and abundant bearer; fruit medium to large, thickly covered with red stripes, blush on the sunny side: flavor rich, sprightly subacid. December to April.
- Lankford's Seedling. Origin Kent Co., Md. Tree hardy and a good bearer, bearing annual crops; fruit of large size, striped; quality excellent; keeps till April. This new sort possesses many valuable qualities, and will no doubt become a popular sort for late winter use.
- **Limbertwig.** A well-known Southern apple. Above medium size; color dull, purplish red; flavor subacid, rich, aromatic; productive; keeps well. February to April.

Ma



Johnson's Fine Winter Apple. (See page 18.)

Lady Apple, or Pomme d'Api. Quite small, regular and flat; skin light, clear yellow, with a brilliant red cheek; flesh white, tender and juicy, with a pleasant, delicate, subacid flavor; a great bearer; brings the highest price of any fancy apple in the market. December to April.

Milam. Rather below medium size; smooth; yellow, covered with marbled red and indistinct stripes; flesh white, tender, crisp, juicy; flavor subacid; tree a regular, annual

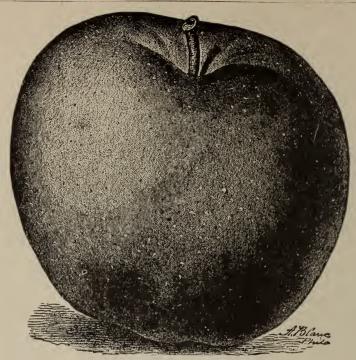
bearer. November to February.

Mason's Stranger. Originated in Greenville Co., Va. Medium size; color yellow, with russet dots on one side; flesh white, Juicy and crisp; flavor nearly sweet; keeps through winter into spring; tree moderately thrifty, and a good bearer. January to March.

McIntosh Red. Large, roundish; skin mostly covered with bright red; flesh white, tender, subacid, sprightly, very good; a handsome apple of fine quality; strong grower. November to February.

nn. Downing describes the fruit as follows: "Fruit medium to large, roundish oblate, nearly regular; skin deep yellow when fully ripe, often with a shade of brownish red where exposed, and thickly sprinkled with light and gray dots, a few being areole; stalk short, rather small; cavity medium or quite large, sometimes slightly corrugated; flesh yellowish, half-fine, half-tender, juicy, mild, pleasant, subacid; good to very good." Tree very hardy, grows straight and symmetrical, and makes a large tree in the orchard; it is an early and annual bearer. Sold to be a good keeper. chard; it is an early and annual bearer. Said to be a good keeper.

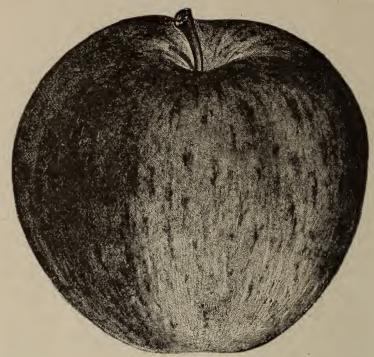
Maverack's Sweet. Large, dark, russety green, with red cheek; flesh crisp and very sugary, with high aroma. November to February.



Mammoth Black Twig Apple.

- Mammoth Black Twig. (Arkansas Paragon.) Originated in Arkansas. A seedling of the Winesap, which it resembles, but it is superior in many ways. Large, deep red; subacid; early and abundant bearer, and a good keeper; the tree is a strong grower, and roots well. This valuable winter apple has few equals. December to April.
- Michael Henry Pippin. Medium to large, smooth; dull green, pale yellow when ripe, sometimes a faint blush; flesh pale yellow, breaking tender, juicy; flavor sweet, slightly aromatic; an abundant bearer; keeps till midwinter. Deserves more extended cultivation.
- Missouri Pippin. Large, oblong; bright red, with darker red stripes; very handsome; fair quality; a good grower and an early and immense bearer; often fruits at two years in nursery rows; valuable for market. December to April.
- Nickajack. This apple is very widely disseminated in the Southern states, where it is known under about forty different names, which is pretty good evidence that it has proved itself a valuable sort. Fruit large, roundish; skin striped and splashed with crimson; flesh yellowish, compact, moderately tender and juicy, subacid; quality only good. November to March.
- Northern Spy. Large, conical, flattened; striped and quite covered on the sunny side with dark crimson, and delicately coated with bloom; flesh white, fine-grained, tender, slightly subacid; both leaf and blossom-buds open a week later than most other sorts. An apple of very high character, but we cannot advise its planting south of Pennsylvania, except in mountain regions. November to February.
- Nero. A seedling of the Romanite which it excels in every way; a valuable winter apple, long keeper, large and beautiful; none better for Middle and Southern states. December to April.
- Northwestern Greening. A Wisconsin seedling of great value; has stood the most trying tests and found to be equal to Wealthy in point of hardness, but superior in fruit and keeping qualities; large, smooth, greenish yellow; flesh fine-grained, juicy, firm; good quality; thoroughly tested. January to April.
- Nansemond Beauty. From Nansemond county, Va.; said to excel the Wine Sap in beauty, size, and keeping; its uniform size and handsome appearance render it a desirable sort for marketing. The fruit is large, uniform, of a beautifal crimson-red, somewhat shaded with yellow; flesh quite white, crisp, tender, juicy. Since its first introduction this variety has been steadily growing in favor, and from many sections we are now receiving favorable reports as to its value. December to April.

- Ortley. (White Bellflower.) Large, oblong, surface smooth; pale yellow, rarely blushed with light crimson and red spots; flesh yellowish, juicy, tender, subacid, sprightly. November to January.
- Pryor's Red. Medium or rather large, roundish, irregular, varying; color dull brick-red on greenish yellow, in dots and shades, and obscure streaks; slightly russeted; flesh very tender, mild, rich, subacid: agreeable flavor. A fine apple in some places, but of late years has not been profitable to the orchardist in some localities. December to February.
- Paradise Winter Sweet. Large regularly formed, roundish; skin fair and smooth, dull green when picked, with a brownish blush; flesh white, fine-grained, juicy, sweet, sprightly and good; productive; an excellent apple. Well worthy a place in the orchard. November to February.
- Peck's Pleasant. Large, roundish, angular; skin smooth, green, becoming yellow, with a blush on the sunny side; resembles the Newtown Pippin; flesh yellowish, fine-grained, crisp and juicy; high-flavored; a good market variety. December to March.
- **Pilot.** A variety of great promise; received from Nelson Co., Va., where it originated, and stands par excellence amongst apples. Size large, round, sometimes approaching conical; color striped with red on yellow ground, overspread with dots and specks of russet; flesh yellowish, crisp and juicy, with a mild, subacid flavor; good bearer and keeps well; tree very healthy and handsome. A first-rate apple.
- Pewaukee. Origin Wisconsin. Seedling from Oldenburg. Medium to large, roundish oblate; skin bright yellow, striped and splashed with dark red; flesh white, tender, juicy, subacid; very hardy, stands intense cold. January to May.
- Red Canada. Medium to large size; yellow, striped with red; juicy and rich; excellent for market or dessert. November to May.
- **Roberson.** Origin Virginia. Said to be large, striped and splashed with red; of first quality; resembles York Imperial. November to Marca.
- Rhode Island Greening. Large, roundish, oblate; skin green, becoming a greenish yellow when ripe; flesh yellow, fine-grained, tender, juicy, with a rich, acid flavor; succeeds well at the North, but not valuable here, dropping its fruit too early. October to December.
  - **Roxbury Russet.** Rather above medium size, roundish, oblate, remotely conical; skin covered with russet; flesh greenish white, rather granular, slightly crisp, with a good subacid flavor. November to January.
  - Romanite or Carthouse. Medium size, roundish, oblong; striped and shaded with deep red on greenish yellow ground; flesh yellow, firm, juicy and rich, becoming tender and sprightly in the spring; valuable for the South; an early and profuse bearer and a good keeper. January to May.
  - **Royal Limber Twig.** Very large, pale yellow, blushed or striped with red; flesh juicy, rich and very good; tree a thrifty grower, and bears well. December to March.
- Rawle's Genet. Tree moderately vigorous, putting forth its leaves and blossoms much later than other varieties in the spring, consequently avoiding injury by late frosts; it is, therefore, particularly valuable for the South and Southwest. Fruit medium size, roundish, approaching oblong; color pale red, distinctly striped on yellow ground; flesh nearly white, fine, rich, mild subacid, fine texture, crisp, juicy, compact; a profuse bearer. One of the most popular winter apples South and West. January to April.
- Rome Beauty. Large, yellow, striped and mixed with light red; flesh yellow, breaking coarse-grained, subacid; valuable for market on account of its productiveness, size and beauty, as well as for its certain bearing. November to January.
- Smith's Cider. Rather large; greenish white, striped with red; flesh tender, juicy, with a mild, subacid flavor; a prodigious bearer and profitable market variety. December to February.
- Shockley. From Jackson Co., Ga. Fruit medium size, yellow, with crimson cheek; flesh subacid, nearly sweet; tree erect, vigorous grower; comes into bearing early, and is exceedingly productive. This is probably the most reliable and valuable winter variety for the South, and is there justly very popular; valuable in eastern Virginia and lower Maryland. Keeps till May or June.
- Stevenson's Winter. From Mississippi; esteemed there on account of its long-keeping. Fruit medium to large; greenish yellow, shaded and sometimes striped with red; flesh firm, juicy, pleasant, brisk subacid.
- **Sharp's Winter.** Medium size; pale yellow, with a blush; juicy and very good; a good bearer, and keeps till April.
- Shepherd's Keeper. Origin Carroll Co., Md. This new seedling apple promises great things; the fruit is medium size, round, of deep, reddish brown; an annual and heavy bearer and excellent keeper. Ready for use January 15, and good until June.
- Sutton's Beauty. From Massachusetts. Large, handsome, roundish; skin yellow, waxen, striped with crimson; flesh tender, subacid; tree strong grower and bears well; a valuable new market apple. December to January.



Rome Beauty. (See page 21.)

Stark. A western kind of first quality; thoroughly tested and always valuable, especially for market. The tree is a very strong grower, hardy and bears annually; much in demand, and planted on a large scale; fruit large, oblong, partly covered with red; flavor mild subacid. Deserves a place well up among "best kinds;" long-keeper.

**Twenty Ounce.** (Cayuga Red-Streak.) ¡Very large and showy, roundish, uneven; greenish yellow, splashed and marbled with dull red; flesh is good, sprightly, though not high-flavored, coarse-grained; its size and regular bearing makes it popular. October to January.

Talman's Sweet. Medium size; pale yellow, tinged with red; flesh rich and of first quality, and good cooker. December to April.

Tewksbury Winter. (Tewksbury Winter Blush.) Small size, smooth; yellow, blushed; flesh yellow, breaking juicy, well flavored; a good grower and very productive; fruit hangs well on tree; valuable as a long-keeper. January to June.

Via's Seedling. Originated in the vicinity of Richmond, and brought to notice by James Via. Fruit above medium size, almost covered with dark red; flavor mild, subacid or sweet; very productive. November to February.

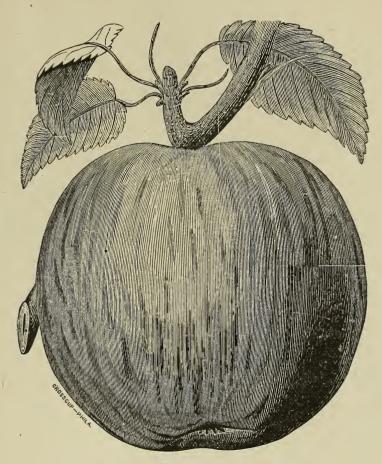
Wealthy. From Minnesota; not tested South. Fruit medium, oblate; whitish yellow ground, shaded with deep rich crimson in the sun, obscure, broken stripes and mot-tlings in the shade, sometimes entirely covered with crimson, many light dots; flesh white, fine-grained, stained with red, tender, juicy, lively, vinous, subacid; very good.

Willow Twig. Fruit medium size, roundish, slightly conical, somewhat oblate; light yellow, shaded and marbled with dull red, and sprinkled with numerous russet dots; flesh yellowish green, not very tender, pleasant subacid; good; valuable for late keeping.

White Pippin. Fruit large, form variable, roundish oblate, slightly oblique; greenish white, waxen, sprinkled with green dots, and becoming pale yellow at maturity, sometimes having a dull blush and a few brown dots; flesh white, tender, crisp, juicy, fine, rich, subacid; very good to best. January to March.

Wagener. Medium to large; deep red in the sun; flesh firm, subacid and excellent; early bearer; very productive. December to May.

Walbridge. Medium size, oblate; pale yellow, shaded with red; tender and juicy; very hardy and productive; esteemed especially in cold climates; a late keeper. January to



Winesap Apple.

- Wolf River. An apple peculiarly adapted to the West on account of its extreme hardiness; very large and handsome; flesh whitish, juicy, subacid; a good bearer and long keeper.
- Wine Apple. (English Redstreak, Hays' Winter.) A valuable late autumn or early winter apple. Fruit large; skin yellow, more or less covered with mixed and broken stripes of red, splashed with crimson; flesh yellowish, firm, juicy; flavor acid to subacid, rich; quality good. October to December.
- Winesap. We can scarcely find words sufficiently strong to express the high opinion we have of this fruit, possessing, as it does, a combination of so many excellent qualities. For cider it has but few equals; for the table it stands amongst the best; for keeping it is justly esteemed; and for bearing it scarcely has a rival. Considering all this, we most earnestly recommend it to the consideration of orchardists. Fruit medium size, rather oblong; skin smooth, of a fine, dark red, with a few streaks and a little yellow ground appearing on the shady side; flesh yellow, firm, crisp, with a rich, high flavor. December to April. (See engraving.)
- White Winter Pearmain. Size full medium; skin pale yellow, with a slight blush; flesh yellowish, tender, crisp and juicy; very pleasant, subacid; tree grows thriftily and bears abundantly. Keeps till midwinter.
- Yates. A Georgia variety; of small size; dark red and dotted with white dots; fleshfirm, juicy, aromatic; immense bearer and good keeper.

#### CRAB APPLES.

#### For Ornament or Preserving.

General Grant. Very large, round, dark red; flesh white and tender; excellent for dessert. September.

**Hyslop Crab.** Fruit large for its class; produced in clusters; dark, rich red, covered with a thick, blue bloom; good for culinary uses and for cider.

Martha. Origin Minnesota. Large, bright yellow, shaded with red; mild, clear subacid, sprightly; new; no blight; very hardy and desirable. October.

Marengo. This is really a "thing of beauty." Large, covered entirely with dark red; handsome; prolific. September.

Red Siberian Crab. Quite small—a little over an inch in diameter; nearly round, with a brilliant scarlet cheek, on a pale, clear, waxen yellow ground; stalk very long and slender; tree very productive, and bears when very young; quite ornamental; good for preserving. September to October.

**Transcendent Crab.** Fruit large for its class; golden yellow, with a beautiful, rich crimson cheek; when ripe, the red or crimson nearly covers the fruit; flesh creamy yellow, crisp, subacid, pleasant and agreeable. This is truly a beautiful fruit; tree a rapid grower, and productive. September.

Van Wyck. Origin New York. This handsome, very large new crab has come to stay. Skin yellow, colored light red and covered with bloom; flesh yellow, very sweet and tender. September.

Waugh's Crab. Small; yellow, with red cheek; profuse bearer. September.

Whitney. (No. 20.) Large; striped and splashed with red; flesh yellow to white, firm and juicy, with a pleasant subacid flavor; tree very hardy, vigorous and very productive. August.

Yellow Siberian Crab. Resembles the red crab except in color, which is of a fine, rich yellow. This is equally good for preserving, and considering the beautiful habit of the tree, the rich, showy bloom, together with its attractive appearance when covered with fruit, we think it highly deserving of a place amongst the ornamentals.

The following new crabs are well worthy the attention of all cultivators of this class of fruit. All are very hardy and productive, producing their fruit in magnificent clusters that are really wonderful. Every one who has room for five trees should have at least one of these:

Blushing Maid, Gibbs, Maiden's Blush, Montreal Beauty, Quaker Beauty, Queen's Choice, Soulard.

Our trade, extending from Massachusetts to Texas, and from Virginia westward to the Pacific coast, necessitates the growing of a long list of varieties to meet the wants of various customers in this wide country, so diversified as it is in soil, climate and latitude. Some sorts that we grow for one section are of little or no value in other localities of a different character; and as the limited space of a nurseryman's descriptive catalogue will not allow a full explanation of the characteristics of each variety, we have, therefore, been prompted by the very many injudicious selections made by some of those ordering from us, to prepare lists suited to the different parts of Maryland, Virginia and West Virginia, which will also apply to similar soils and elevations in the adjoining ones. We do not claim that these lists are perfect; there are many sorts that might be added, and time will prove that some that are now on the list will be superseded by other more valuable ones; yet, from our experience and observation, and the experience of others, we are satisfied that those who adopt these sorts, as classed for the different sections, will not go far astray. If one who contemplates ordering trees is acquainted with a variety that is succeeding well in his neighborhood, on a soil similar to his own, let him add it to his list; but do not let him select because of a nice name, or because the variety is highly prized in some other section of the country, differing very materially in soil, altitude or climate. If ordering from a responsible nurseryman, or one in whose honesty you can rely, it is far better to leave the selection to him, stating for what purpose you desire the fruit, whether for family use, cider or marketing, with the proportion wanted for each season. If you make the selection yourself, give the nurseryman some discretionary privilege in correcting your list, if in his judgment you have collected sorts that he knows will not be profitable to you. It is very unpleasant to a nurseryman to fill an order of sorts that he well knows will not profit the purchaser, and he cannot in all cases substitute without giving dissatisfaction. We hope our suggestions will be considered, and that the following list will be a guide to our customers in making their selections, thereby avoiding the disappointment that will surely follow the selection of sorts unsuited to their locality:

#### Varieties best suited to Tidewater Virginia and Eastern and Western-shore Maryland.

#### SUMMER VARIETIES

American Summer, Bough, Carolina June, Early Harvest. Early Ripe, Fourth of July, Gravenstein, Horse, Red Astrachan, Yellow Transparent.

#### FOR LATE SUMMER AND AUTUMN.

Buckingham, Baltzley, Bonum, Fallawater, Gravenstein, Jefferis,

Maiden's Blush, Oldenburg, Wealthy.

#### FOR LATE AUTUMN AND WINTER.

Benoni, Ben Davis, Berry Red, Cannon Pearmain, Delaware Late Winter, Johnson's Fine Winter, Kinnard's Choice, Langford's Seedling, Lady Apple, Mammoth Black Twig, Nickajack, Nansemond Beauty,

Royal Limbertwig, Romanite, or Carthouse, Shockley, 'Smith's Cider, Winesap.

#### Varieties best suited to Piedmont, Virginia.

#### SUMMER VARIETIES.

Amer. Summer Pearmain, Bough, Benoni, Carolina Red June, Early Harvest, Early Ripe,

Gravenstein, Red Astrachan, Yellow Transparent.

#### FOR LATE SUMMER AND AUTUMN.

Buckingham, Baltzley, Bonum, Duchess of Oldenburg, Jefferis, Maiden's Blush.

Mother, Smokehouse, Wealthy.

#### FOR LATE AUTUMN AND WINTER.

·Albemarle Pippin, Ben Davis, Cannon Pearmain, Fallawater, Gano, Grimes' Golden, Johnson's Fine Winter, Kinnard's Choice, Lady Apple, Mammoth Black Twig, Nickajack, Nansemond Beauty, Paradise Winter Sweet, Pilot. Rawle's Genet, Romanite, or Carthouse, Rome Beauty, Royal Limbertwig, Smith's Cider, Shockley, Winesap.

#### Varieties for the Valley of Virginia and West Virginia and Western Maryland.

#### SUMMER VARIETIES.

Amer. Summer Pearmain, Bough, Benoni, Bonum, Carolina Red June, Early Ripe, Early Harvest, Jefferis, Red Astrachan, Yellow Transparent.

#### FOR LATE SUMMER AND AUTUMN.

Baltzley, Buckingham, Duchess of Oldenburg, Fall Pippin, Fallawater, Gravenstein, Maiden's Blush, Smokehouse.

#### FOR LATE AUTUMN AND WINTER.

Albemarle Pippin, Baldwin, Bonum, Ben Davis, Delaware Late Winter, Fallawater, Gano, Grimes' Golden, Johnson's Fine Winter. Kinnard's Choice, Lady Apple, Mammoth Black Twig, Nansemond Beauty, Pilot, Peck's Pleasant, Paradise Winter Sweet, Rawle's Genet, Rome Beauty, Royal Limbertwig, Winesap.

#### Varieties best suited to Pennsylvania and the West.

#### SUMMER VARIETIES.

Early Harvest, Early Ripe, Fourth of July, Jefferis, Red Astrachan, Yellow Transparent.

OR LATE SUMMER AND AUTUMN.

Buckingham, Bonum, Fall Pippin, Fallawater, Gravenstein, Maiden's Blush, Oldenburg, Smokehouse, Wealthy.

FOR LATE AUTUMN AND WINTER.

Baldwin, Ben Davis, Dominie, Gano, Grimes Golden, Jonathan, Johnson's Fine Winter, Kinnard's Choice, Mammoth Black Twig, Northern Spy, Rome Beauty, Smith's Cider.

#### Varieties best suited to the South.

#### SUMMER VARIETIES.

Carolina Red June, Early Ripe, Early Harvest, Fourth of July, Horse, Yellow Transparent.

FOR LATE SUMMER AND AUTUMN.

Buckingham, Bonum, Fall Pippin, Gravenstein, Oldenburg, Wealthy.

FOR LATE AUTUMN AND WINTER.

Ben Davis, Berry Red, Carolina Greening, Johnson's Fine Winter, Kinnard's Choice, Lankford Seedling, Mammoth Black Twig, Nickajack, Romanite, Royal Limbertwig, Shockley, Winesap, Yates.

#### ADDITIONAL LIST OF APPLES.

The most of the following kinds are cultivated in limited numbers, but trees or grafts of them can be furnished at any time. Many of them are old and valuable sorts, highly esteemed in particular localities, or by some individuals. There are some sorts we have omitted in the descriptive list, not because they do not merit that position, but because that list is already too long. There are some kinds, too, that are yet new, which may upon further trial prove themselves deserving of the very first rank. We will keep an eye on them, and in our next catalogue may be better able to give a satisfactory account of them.

Alexander. Antonovka, Autumn Bough, Black Apple, Black Warrior, Black Coal, Bucks County Pippin, Birmingham (Strodes), Bethlemite, Big Hall. Better than Good, Beverly Red, Bar's Seedling, Broadax, Brown, Bailey's Sweet, Bohannon, Butter, Bowman's Excelsior, Caleb, Carter's Blue, Carver, Cooper (of Ohio), Cathead, Canada Reinette, Cataling, Cornell's Fancy,

Chester County, Dutch Mignonne, Drumore, Dumpling, Dinwiddie's Seedling No.2, Davidson's Mutton, Eating (Conrad's), Early Joe, Early Colton, Early Red Edward's Early, Edwards. Ella Park, French or Newark Pippin, Fall Cheese, Fink, Fall Orange, Fameuse, Flora's Bellflower, Gloucester White, Great Bearer, Golden Russet, Gray Russet, Great Keeper,

Green Newtown Pippin,

Gregory,

Goosepen,

Haskell's Sweet, Holland Pippin, Harrison, Hopbole, Hubbardston Nonesuch. Haupe Stripe, Haas, Hall, Hunge, Harman's Seedling, Haslep, Ionathan, Jersey Pound, Julian, Keswick Codlin, Krauser, Krauser, Kittageskee, King, King of all the World, Ladies' Favorite, Lancaster Sweet, Loy, Lady Finger, Ladies' Sweeting, Large May, Large Summer Queen,

Herefordshire Pearmain.

London Pippin. Large Winter Greening, Long Island Russet. Lansingburg, Lakin's Choice. Lady Lyons, My Sweetheart Monstrous Pippin, Monstrous Bellflower. Marl Bank, Minkler. Minnesota. Mother. Mattamusket. McIntosh. Newcomer. Notley North Carolina Greening, Orange, Orange Pippin, Peter (Gideon's Best o fAll). Progress, Pennock, Piedmont Pippin. Pewaukee.

Paragon, Peach Pond Sweet. Pumpkin Sweet. Primate. Red-Cheeked Pippin, Republican Pippin, Red Doctor. -Royal Russet, Red Canada, Red Russet. Red Robinson Ribston Pippin. Rockbridge's Sweeting, Rucker's Orange Pippin, Ramsdell's Sweet. Summer Cheese. Sweet Vandevere. Superb. Striped Juneating, Schull, Sweet Winter Nonesuch, Sops of wine. Sweet Russet Sweet Redstreak. Stark.

Sweet Pippin, Sharp (Penna.), Stover's Best. Scott's Winter. Tallman's Sweeting, Townsend. Twenty Ounce. Titovka. Victuals and Drink Vandevere (of N. Y.), Virginia Beauty Woodburn's Spitzenburgh. Wagener. Westfield Seek-no-Further Water Melon, Winter Cheese White Catline, Williams Favorite. Westfield. Walbridge, Yellow Vandevere, York Str.pe, Yellow Sweet June. Yopp's Favorite.

#### SELECT PEARS.

The increasing demand for this fruit, and the great profit arising from its culture, have called forth the energy and exertions of our leading pomologists to originate new varieties, and to bring to notice the most valuable kinds. To what extent they have succeeded we will leave for those to say who have visited some of the grand exhibitions of fruit; yet we say that the majority as yet are wholly ignorant of the rich and delicious qualities of this fruit, but we hope the day is not far distant when every orchardist and every farmer will have his pear orchard, and feel that this fruit is quite as valuable a product as the apple.

In ripening the fruit, it should be understood that summer and fall varieties should be picked from a week to a fortnight before maturity, and winter sorts before frost overtakes them. Most sorts, if allowed to ripen on the tree, are but second-rate, or of inferior quality, while if picked as above directed and ripened in the house, they are delicious.

The great demand for dwarf trees for some time past has induced us to propagate a number of choice kinds as such; for this purpose we use the best French quince stocks. This mode of culture has several advantages over the standard system, among which are the comparatively short time required to bring them into a bearing state, the less liability to blight, their adaptation to the garden and small enclosures, as they require so little room, and lastly, some varieties are greatly improved by working them on the quince, the fruit being more delicious and the trees more productive than when worked on pear stocks.

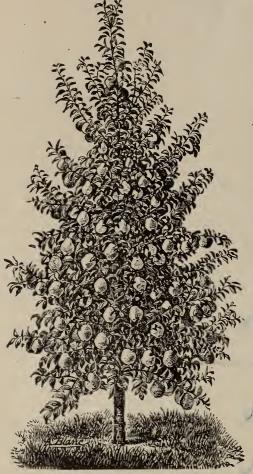
In commenting thus favorably on dwarf trees, we do not wish to be understood as underrating the value of standards; both have their advantages. While some sorts are better dwarfed, others should only be planted as standards; that most popular sort, the Bartlett, belongs to the latter class. We might name several other prominent ones that should be placed on the same list. Variety, soil and space should be the main points upon which to decide between selecting standard or dwarf trees.

We must, however, state from our own experience and observation, that no one will succeed in raising a durable and productive tree on the quince stock unless he is willing to give it a good supply of manure and deep and thorough cultivation, together with a careful and judicious annual pruning. By attention to this, and the selection of such varieties as are known to succeed well on the quince, the cultivator will be astonished at the beauty, the size and the excellence, as well as the quality of pears which will be produced.

The following is one of the many examples of profit arising from pear culture:

We planted, in 1862, one hundred standard trees, one year from bud (mere switches), and the following year set fifty more of the same age. 1866 we picked from these trees six crates of pears, of one bushel each, that sold in New York for \$73. The product of the orchard has increased annually since that date up to 1871, when the receipts for that year,

after paying frelght and commission, amounted to about \$500; in 1872 over \$600, and in 1873 upwards of \$1,000 was realized. The



Pear Tree, Bearing Size.

upwards of \$1,000 was realized. The trees were set 20 feet apart, occupying not quite one and one-half acres of land.

The Old Dominion Fruit-growing Co.'s pear orchard, in Surrey Co., Va., is probably one of the most valuable and profitable orchards in the country. In this orchard are now planted over 19,000 Bartlett, 600 Clapp's Favorite, 100 Boykin's June, and a few trees each of many other kinds—a total of over 20,000 trees, all standards. One entire crop from this orchard netted in Boston and New York markets, \$3.41 a crate; another crop netted over \$4. In one season the net proceeds were over \$14,000.

Similar instances beyond number could be given, but we think the above sufficient to convince any one of the great profit of pear culture.

Let the selection of varieties be judiciously made, and with good culture success is reasonably certain.

#### SUMMER PEARS.

Bartlett. Large; yellow, with a soft blush on the sunny side; flesh white, exceedingly fine-grained and buttery, sweet, very juicy, with a highly perfumed, vinous flavor. This is justly esteemed one of the very best pears in cultivation, and deserves a place in every collection; bears early and well. July and August. (See engraving, page 29.)

Bloodgood. Medium size; flesh vellowish white, buttery and melting, with a rich, sugary, highly aromatic flavor; tree very productive. July.

Boykin's June. Below medium size; yellow, with a reddish brown cheek; flesh white, sweet, not of

high flavor, but its earliness and handsome appearance make it a desirable market variety. Originated in Isle of Wight Co., this state. Season first to middle of July.

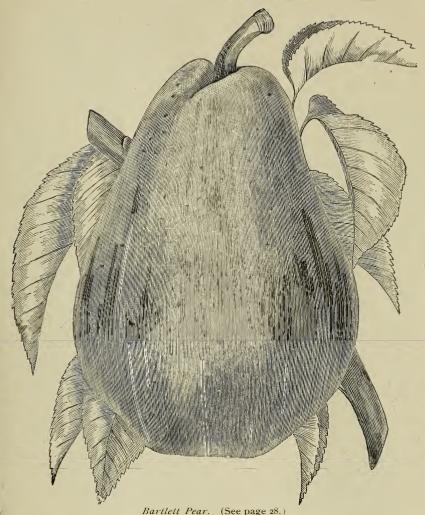
Clapp's Favorite. A first-rate early variety, which is rapidly growing in favor; resembles the Bartlett in appearance, but ripens a week or ten days earlier; one of the best native sorts. Fruit large; skin smooth, yellowish green, becoming yellow, dotted and shaded with red next the sun; flesh yellowish white, juicy and melting; of very good quality. Last of July. (See engraving, page 30.)

Comet, or Lawson. This pear is now attracting a good deal of attention, and promises to be a profitable sort for the early market. The tree is a vigorous grower and very productive; fruit above medium size, and of most beautiful crimson color, on yellow ground; flesh crisp and pleasant, though not of best quality. Ripens early in July.

Early Harvest. Fruit medium size; skin pale yellow at maturity, with blush next to sun; flesh white, tender, sweet; among the best of its season. July.

**Giffard.** (*Beurre Giffard.*) A new pear, rather above medium size; flesh white, melting, juicy, with an excellent, vinous flavor, delightfully perfumed; a valuable early pear; productive; tree a slender grower. Ripens in July.

Hosenschenek. (Moore's White Pound.) Large; light yellowish green, rarely with a blush; flesh rather coarse, tender, juicy, slightly vinous, melting; flavor pleasant; a good market sort; deservedly growing in favor. First to middle of August.



Jargonelle. Of French origin. An old variety, desirable on account of its extreme earli-

Jargonelle. Of French origin. An old variety, desirable on account of its extreme earliness; small, bell-shaped; slight blush to the sun. June.

Le Conte. Supposed to be a hybrid between the old Chinese Sand pear and a cultivated variety. Fruit large, pyriform; skin smooth; tree of remarkable vigor and rapid growth; foliage luxuriant; has so far been nearly free from blight; commences to bear early, and is extremely prolific; fruit ships well, and has been sold in the Boston and New York markets at very high prices; quality variable. Probably no new variety of fruit has ever attracted so much attention in the South as this. Ripens a few days before the provided of the standard of the south as the sum of t fore Bartlett. Grown only as a standard.

fore Bartlett. Grown only as a standard.

Madeleine. Medium size; skin pale, yellowish green, rarely a faint brownish blush; flesh very juicy and melting, with an agreeable, delicate, fine, refreshing flavor; a very good early pear, but the tree is liable to blight. Last of June to 10th of July.

Margaret. (Petite Marguerite.) Medium size; skin greenish yellow, with brownish red cheek, and covered with greenish dots; flesh fine, melting, juicy, vinous, and of first quality; tree a vigorous, upright grower, and an early and abundant bearer; succeeds admirably as a standard or dwarf; worthy of special attention. August.

Manning's Elizabeth. Fruit small, yellow, with a lively red cheek; flesh white, juicy and very melting, sweet and sprightly. Tree hardy and exceedingly productive. We regard this as one of the most valuable early dessert pears, and should be in every collection. Season August

lection. Season, August.

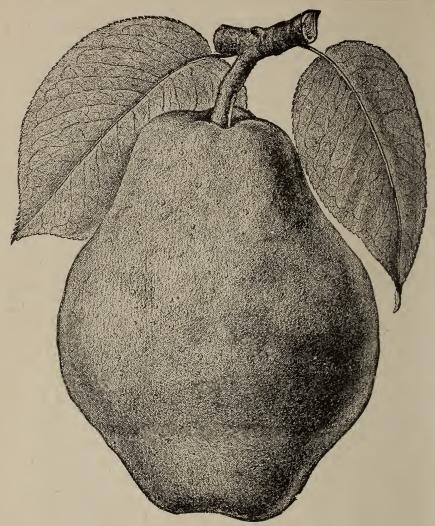


Clapp's Favorite Pear. (See page 28.)

- Ott. Small, greenish yellow, netted with russet, reddish on the sunny side; flesh melting sugary, rich, perfumed and aromatic. This is a seedling of the Seckel, but not quite equal to it; valuable for its earliness. July.
- Osband's Summer. Medium size, yellow, with a reddish brown cheek; flesh white, granular, with a sweet, mild and fine flavor; first-rate in its best state, but soon loses its flavor when mature; productive. July.
- Souvenir du Congress. Fruit quite large; skin smooth, a handsome yellow at maturity, with red or carmine on the side exposed to the sun; flesh much like Bartlett, with less of its musky flavor. The tree is a poor grower, and quite liable to blight. On account of its very large size, quality and earliness, it is a valuable variety for the amateur, but we cannot recommend it for general cultivation. First of August.
- **Summer Doyenne.** (*Doyenne d' Ete.*) Small; flesh white, melting, juicy, with a pleasant, sweet flavor; tree a good grower, and productive; one of the best very early pears. First to middle of July.
- **Tyson.** Medium or large; bright yellow, with a reddish brown, softly shaded cheek, sometimes russeted; flesh of fine texture, buttery, very melting, juicy; flavor nearly sweet, aromatic, slightly perfumed, excellent. August.
- Wilder. A beautiful early pear, bell shaped, yellow with slight blush; flesh yellow, fine grained, subacid; does not rot at the core. Tree vigorous and bears young. July.

#### AUTUMN PEARS.

- **Angouleme.** (*Duchesse d' Angouleme*.) Very large, dull greenish yellow, streaked and spotted with russet; flesh white, buttery and very juicy, with a rich and very excellent flavor; on young standard trees the fruit is variable, but on the quince, to which stock this variety seems well adapted, it is always fine. The large size and fine appearance of this fruit make it a general favorite. September to November.
- Anjou. (Beurre d'Anjou.) Large, greenish, sprinkled with russet, sometimes shaded with dull crimson; flesh whitish, buttery, melting, with a high, rich, vinous, excellent flavor; very productive; succeeds well on the quince; should be in every orchard. October and November.
- **Bosc.** (*Beurre Bosc.*) Large, deep yellow, russeted in patches; flesh juicy, buttery, rich, perceptibly perfumed, sweet, excellent; a regular bearer; does not succeed on the quince. Tree a slender, irregular grower. September and October.
- Brignais. (Beurre de Brignais.) (Des Nonnes.) This very excellent pear is of medium size, smooth, greenish, with numerous gray dots; flesh white, very juicy, sweet, melting, and delicious; an early and abundant bearer. August and September.
- **Brandywine.** Rather above medium size, dull, yellowish green, dotted and sprinkled with russet, and a slight red cheek on the exposed side; flesh white, juicy, melting, sugary and vinous, somewhat aromatic; uniformly productive. August.
- Blight Proof. This ironclad against blight is indeed an acquisition. It seems to have inherited all the health and vigor of its parent, the Sand Pear; the fruit is large to very large, conical, smooth, with beautiful greenish yellow surface; flesh is tender and very juicy; the tree is an upright, strong and handsome grower; bears young and enormously. Should be in every collection where a good fruit and annual bearer is desired. Firstrate for market. August and September.
- **Buffum.** Medium size, yellow, with a broad reddish brown cheek, somewhat russeted; flesh white, buttery, sweet, and of excellent flavor; valuable for its fair fruit and fine bearing qualities. September and October.
- Belle Lucrative. Above medium size, yellowish green; melting and fine; a good grower and bearer; does well on the quince; one of the very best pears, and should be in every collection. August and September.
- **Boussock.** (*Doyenne Boussock.*) Large, bright lemon-yellow, sometimes partly russeted, with a reddish brown cheek; flesh buttery, melting, very juicy, with a first-rate flavor, resembling that of White Doyenne; tree vigorous; an early and good bearer; succeeds well on the quince. September.
- Comice. (Doyenne du Comice.) Large, yellow, often with a faint blush, and slightly russeted; flesh white, fine, melting, a little buttery, juicy, sweet, rich, slightly aromatic; very good; a promising variety. September to November.
- **Dewey's Premium.** Of oriental type; originated in Ohio; the fruit is large, beautiful golden russet, flushed with red to the sun; the quality is good but like most pears it should be picked before fully ripe and ripened slowly to attain perfection; bears early, very productive; excellent for market and canning. Fall.
- Flemish Beauty. Large; skin pale yellow, but mostly covered with marblings and patches of light russet, becoming reddish brown at maturity on the sunny side; flesh yellowish white, not fine grained, but juicy, melting, saccharine and rich. In good soils and open situations the Flemish Beauty, when in perfection, is one of the most superb pears; the tree is hardy, and bears early and abundantly. The fruit should be gathered sooner than most pears, and ripened in the house; they are then always fine; otherwise often poor. September.



Kieffer Pear.

Garber. A seedling of the Japan Hybrid, raised by Dr. J. B. Garber, of Pennsylvania; resembles Kieffer, yet is larger, of better quality and very productive, and especially valuable for canning. Tree a strong grower, bears early and abundantly. "Bound to win favor for market." Free from blight. September and October.

Howell. Rather large, light waxen yellow, often with a finely-shaded cheek, and covered with dots and patches of russet; flesh white, rather coarse and granular, with a rich, perfumed, aromatic flavor: a profuse bearer. August.

perfumed, aromatic flavor; a profuse bearer. August.

Idaho. This new pear comes from its home in Idaho well recommended; it has attracted much attention and been received with general favor; thought to be a seedling of the Bartlett; the tree is nearly identical in color of wood and habit of growth with Bartlett, possibly a trifle more upright; the fruit is large, handsome and globular; yellow skin, flesh white, very fine grained and tender, the core being quite small. Ripens a month later than Bartlett.

Kieffer. (Kieffer's Hybrid.) A new variety originated near Philadelphia, and supposed to be a cross between the Chinese Sand Pear and the Bartlett. Tree a very vigorous grower and an early and abundant bearer. Fruit medium to large; skin yellow, with a bright vermilion cheek; flesh brittle, very juicy, of good quality; valuable for market or family use; succeeds best as a standard. September.

Louise Bonne de Jersey. Large; pale, yellowish green, with a brownish cheek; flesh yellowish white, very juicy, buttery, melting, rich, faintly subacid, fine. This variety is scarcely of the highest quality, but is eminently valuable for its large, fair fruits, free growth and great productiveness; succeeds admirably and grows with great vigor on the quince stock, and should be worked on no other. September and October.

Mount Vernon. A very good pear of medium to large size; russet on yellow ground, brownish red in the sun; flesh yellowish, juicy, melting, slightly vinous and aromatic.

October and November.

Onondaga. (Swan's Orange.) Large size; color yellow; flesh buttery, melting, abounding in juice, slightly granular. September to November.

Rutter. Rather large; skin rough, greenish yellow, with some russet; flesh white, juicy, sweet and slightly vinous; very good; bears early and abundantly. September and October.

October.

Sheldon. Medium size; yellow on greenish russet, with a richly shaded cheek; flesh a little coarse, melting, juicy, with a very brisk, vinous, highly perfumed flavor; productive. Grown only as a standard. October.

Superfin. (Beurre Superfin.) Medium size; yellow, shaded with crimson on the sunny side, partly covered with russet and sprinkled with dots; flesh exceedingly juicy, buttery, melting, with a brisk, vinous or subacid flavor; never known to crack; tree vig-

October

orous. October.

Seckel. Small; skin brownish green at first, becoming dull, yellowish brown, with a lively regular and abundant crops at the ends of the branches. In view of all this, it is easy to see that we consider no collection complete without it. It ripens gradually from the middle of August to the middle of September.

middle of August to the middle of September.

Urbaniste. Rather large; skin pale yellow or greenish, faintly russeted; flesh white, buttery, very melting and rich, with a copious, delicious juice, delicately perfumed. The delicious flavor, good size and handsome appearance, together with the healthy habit of the tree, render this one of the most valuable kinds; bears abundantly. October.

White Doyenne. Rather large; skin smooth, clear, pale yellow, sprinkled with small dots, and often with a red cheek; flesh of very fine texture, very buttery, melting, rich, highly flavored and delicious. A worthy pomologist has said that this "is unquestionably one of the most perfect of autumn pears." It fails, however, in some localities, which may be owing to a deficiency in the soil: but where it succeeds well, should be which may be owing to a deficiency in the soil; but where it succeeds well, should be planted. September and October.

#### WINTER PEARS.

rdeaux. (Duchesse de Bordeaux.) Medium size; skin thick, green, changing to yellow, with russet lines and dots; flesh white, tender and sweet; a valuable late sort in the South. December to February. Bordeaux.

Easter Beurre. Large size; yellowish green, sprinkled with russet dots, and sometimes considerably russeted; flesh white, fine-grained, very buttery, melting and juicy, with a sweet, rich flavor; tree a rough grower in the nursery. December to March.

Lawrence. Rather large; yellow, covered with brown dots; flesh whitish, slightly gran-

ular, sometimes buttery, with a very rich, aromatic flavor; unsurpassed amongst the early winter pears; succeeds well on the quince; ripens with little care; should be in every orchard; tree healthy, hardy and productive. November and December.

and. Very large; yellowish green, with a brown cheek, sprinkled with russet dots; flesh firm and solid; stews red; is excellent baked or preserved, for which purpose only

it is used. October and November.

President Drouard. This very promising variety was introduced by us from France some years ago, and our experience with it so far leads us to believe that it will prove to be the most valuable winter pear for this section. Fruit large, often very large, handsome, and of very good quality; tree hardy and a vigorous grower, and an abundant bearer. January to March.

**Vicar.** (*Vicar of Winkfield.*) Large; pale yellow, with sometimes a brownish cheek; flesh greenish white, juicy, but sometimes buttery, with a good, sprightly flavor; in some sections a very profitable market pear, but seldom succeeds South.

Winter Nelis. Medium size; dull russet; flesh yellowish white, fine-grained, buttery and melting; abounding with juice of a rich, saccharine, aromatic flavor; the tree is a slender, straggling grower, but a good bearer. November and December.

To aid the inexperienced in making their selections, we have carefully prepared the following lists; one for cultivation as standards on pear stocks, the other to be grown as dwarfs on the quince root. In both lists the varieties are put down in about the order of ripening.

FOR STANDARDS.

Summer Doyenne, Osband's Summer, Giffard,

Manning's Elizabeth, Tyson, Clapp's Favorite.

Le Conte, Bartlett, Howell,

Belle Lucrative, Boussock, Seckel, Flemish Beauty, Buffum, Idaho, Dewey's Premium, Angouleme, Superfin, Kieffer, Sheldon, Comice, Anjou, Lawrence, Bordeaux, President Drouard, Easter Beurre.

#### FOR DWARFS.

Summer Doyenne, Osband's Summer, Manning's Elizabeth, Tyson, Howell, Brignais, Brandywine, Belle Lucrative, Buffum, Superfin, Angouleme, Louis Bonne de Jersey, Urbaniste, Rutter. Comice, Anjou, Lawrence, Bordeaux, President Drouard, Easter Beurre.

### ADDITIONAL LIST OF PEARS.

We cultivate a considerable number of trees of some of the following kinds; others we propagate only on a small scale, for amateurs or those who wish a very great variety. Many of them are new, and no doubt upon further trial will prove worthy of the very first rank; others may be found unworthy of cultivation, and shall be promptly discarded from our catalogue. We should add that many of them are old and popular kinds, and would be added to the Descriptive List were it not already too long.

Amanlis,
Andre Desportes,
Beurre de l'Assomption,
Brockworth Park,
Big Bartlett,
Big Seckel,
Bessemianka,
Catillac,
Clairgeau,
Dearborn,
Deil,

Dana's Hovey, Dewey's Premium, Edwards, Early Green Sugar, Figue d'Alencon, Friedrich Clapp, Glout Morceau, Hebe, Hardy, Jones' Seedling, Josephine de Malines, Kingsessing, Langelier, Pollard's Favorite, Pitmaston Duchess, Pratt, Quince Pear, Russet, Rostiezer, Steven's Genesee.

## SELECT PEACHES.

To a person who has tasted a luscious Rareripe, no words of praise are needed; to make him appreciate the value of the Peach. We have the climate and opportunities to develop this fruit to the highest standard of excellence, and it should be a source of gratification to all that within the last few years so many valuable new varieties of merit have been introduced. Formerly, it was in season for but a short period; now, by the introduction of Amsden, Beatrice, etc., to our list of early varieties, and of Butler's Late, Bilyeu's Late, Levy's Late, etc., to our late varieties, a list is given of varieties ripening along from July to October, and later.

Owing to the greatly increased demand for the Peach, due to the development of the canning and evaporating interests, this fruit will, no doubt, continue to be exceedingly profitable to the orchardist who gives the business proper attention, and has a suitable location for his orchard.

The grower in the Southern states, who has transportation facilities to market his fruit in the Northern markets, we would advise to plant largely of the earliest varieties; they mature and can be marketed in New York before the fruit of Delaware and Maryland is ripe. In the New York market the early Southern Peaches always command the highest prices, frequently selling as high as from \$6 to \$10 a bushel. Those situated beyond the reach of convenient transportation should, after providing for their local markets, plant the best sorts for canning and evaporating purposes, as these have now become very important and profitable industries.

There is no fruit tree that makes so quick a return as the Peach. Give it reasonable attention, and in three years from planting a fair crop may be gathered; and the receipts from a good orchard are something of importance, there now being many Peach growers in Delaware and Maryland who realize from ten to twenty thousand dollars from that crop in favorable seasons, and yet they do not have the advantage of the high prices that may be

obtained by the Southern orchardist for his earlier crop, brought into the market before the competition that meets the Maryland and Delaware grower.

Our purpose is to grow the best trees, not the lowest-priced ones. Great care is necessary to preserve the health of the young tree before it is taken to the orchard. We are careful, therefore, to select the best seed, to use buds from healthy trees only, and, having bearing orchards for the purpose of testing all varieties propagated in our nurseries, we are confident that every tree will be true to name, and just as represented by us. We have prepared a list (see page 42) for general cultivation, that comprises a succession from the earliest to the latest ripening, embracing the best cultivated varieties; yet there are many sorts of almost equal value omitted, because they are so near like those already on that list: indeed, if we were not growing trees for a very wide range of country, we would cut down the number of varieties very considerably, as fifteen or twenty sorts will give a succession through the season that would satisfy the most fastidious lover of this fruit, not only in succession, but in a variety of sorts for all seasons.

When the selection or varieties is left to us, those ordering will please state whether they want them for market, for home consumption or for canning, and in such cases we will exercise our best judgment in making a judicious selection.

EARLIEST PEACHES.—The large profits realized by shippers of the early Peaches have created a great demand for the trees, and propagators controlling new varieties considered earlier than varieties heretofore grown have been able to secure very remunerative prices for their improved stock. This has led to a sharp competition among nurserymen to secure this trade for the "earliest Peach grown," Competing for the position as the most profitable early Peach, there have been introduced Amsden, Alexander's Early, Waterloo, Downing, Wilder, Saunders, Bowers' Early, etc., etc. After a careful comparison of these varieties, we retain in our catalogue Amsden and Waterloo. Other varieties so closely resemble these as to make it difficult to distinguish them as distinct varieties.

**Alexander.** One of the earliest peaches. Fruit medium size, nearly covered with crimson; flesh white and good; valuable market variety South; bears very young. June.

Amelia. From South Carolina. Very large and beautiful; white, nearly covered with crimson; flesh white, juicy, melting, sweet, rich, vinous; one of the best peaches for home consumption, but too tender for long transportations; freestone. Last of July.

Albright's Winter. A new peach; originated in Guilford Co., N. C. It is of fine size and handsome appearance; color white, changing to light orange; of fine quality, juicy, sweet and rich; clingstone. Ripens late in October, and if properly stored will keep into December. Will probably not be valuable north of Virginia.

Amsden. (Amsden's June.) This variety originated on the farm of L. C. Amsden, near asden. (Amsden's June.) This variety originated on the farm of L. C. Amsden, near Carthage, Mo., fruiting for the first time in 1872. It first fruited for us on our grounds at Richmond in 1877, ripening June 26th, or more than two weeks in advance of Hale's Early. Tree hardy, healthy and vigorous, and a great bearer; fruit full, medium size, roundish; skin nearly covered with light and dark red, almost purplish in the sun, somewhat mottled in the shade; flesh greenish white, white at the stone, juicy, sweet, slightly vinous and very good; has proved quite profitable South for the early market. This fills the place of Alexander, Bower's Early, Gov. Garland, Wilder and several other sorts, all of which are very similar to it in appearance, time of ripening, and general shere the riches. eral characteristics.

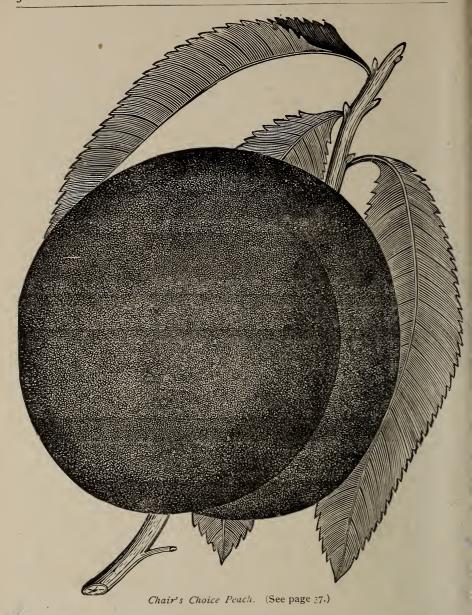
Baldwin's Late. Medium; greenish white, with a red cheek; juicy and well-flavored. Origin, Alabama. October.

Bilyeu's Late. Originated in Caroline Co., Md. A very late peach, ripening after Smock Free and Salway. Fruit of large size; color white, with a beautiful blush cheek; flesh white; freestone, and an excellent shipper.

**Brandywine.** A peach closely resembling Crawford's Late in appearance, but ripening ten days later; it is fully as large as Crawford's Late. Flesh yellow; freestone.

Beatrice. (Early Beatrice.) Small to medium size; deep mottled red; flesh melting, juicy, vinous and of good quality; tree exceedingly prolific; fruit often needs thinning to insure fair size; blooms late, and frequently bears when other varieties are destroyed by frost; valuable for the latitude of Virginia and southward; bears transportation well. Early in July.

Butler's Late. This magnificent new freestone peach originated in the garden of J. T. Butler, Richmond, Va. Fruit of the very largest size; skin greenish white, with red cheek; flesh white, firm and of very good flavor; tree vigorous and very productive. This promises to be a very valuable sort, owing to its combination of many valuable qualities, among which are very large size, great productiveness and very late ripen-ing, coming in after Smock, when there is usually a dearth of peaches. First to middle of October.



Bonanza. From Texas. Said to be a very large, white-fleshed sort, ripening fifteen days later than Salway; skin white, with red cheek; quality fine; tree vigorous and productive.

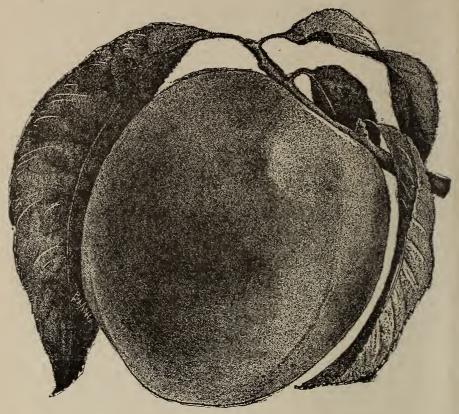
Bequett Free. From California. Of immense size; skin white, with red cheek; flesh white; productive for so large a fruit. September.

Burke. From Louisiana. Seedling of Chinese Cling, and very large. It is described as roundish oblong, pale creamy white, slightly shaded with red; flesh white, juicy, of excellent flavor; clingstone. August.

Barnard's Early. Large, yellow freestone of fine quality; planted extensively in the Northwest. August.

- Beer's Smock. Large, yellow, oblong; similar to the Smock, but larger, also a few days later: flesh firm and red next the seed; one of the very best; freestone. October 1st.
- Crawford's Early. A magnificent, large, yellow peach, of good quality; tree exceedingly vigorous and productive; its size and beauty make it one of the most popular orchard fruits; flesh very juicy, rich, slightly subacid, of good flavor; valuable as a market variety; freestone. First of August.
- Crawford's Late. A superb fruit, of very large size; skin yellow, with a broad, dark red cheek; flesh deep yellow, but red at the stone, juicy and melting, with a bload, dark led excellent vinous flavor. This is undoubtedly one of the very best yellow peaches, and an admirable market fruit; tree vigorous and productive; freestone. Middle of August.
- Columbia. (Yellow Indian, Pace, etc.) Large; skin rough and thick, dull, dingy red, with streaks of darker red; flesh yellow, interspersed with red or pink. Last of Aug.
- Chinese Cling. Fruit large, roundish, oval; skin transparent cream color, with marbling of red next to the sun; flesh creamy white, very juicy and melting, with a rich, agreeable flavor. Last of July.
- Crosbey. (Excelsior. best best parts of New England, and in each case has proved itself to be first class the bleakest parts of New England, and in each case has proved used to be first class in every way. In 1886 and 1890, when there was a total failure of the peach crop, from the late frost, the Crosbey bore its regular heavy crop. Being almost frost proof, it should be planted generally. The fruit is medium size, bright yellow, splashed and streaked with carmine on the sunny side: the flesh is firm, sweet and delicious: stone very small; an enormous bearer. It ripens between Early and Late Crawford.
- Chinese Free. Seedling of Chinese Cling. Large, oblong; skin white, with red cheek; flesh firm and well flavored; free from rot; valuable for market. August.
- Champion. This new peach comes from Illinois, recommended as an ironclad against frost, as in 1890, when there was a total failure of the peach crop, it bore heavily. It has stood a temperature of 18° below zero, and bore well the following season. Fruit is of large size; skin creamy white, with red cheek; the flesh is white, rich and juicy; a perfect freestone and good shipper. July.
- Conkling. Of large size; round, slightly sutured; yellow, marbled with crimson; flesh yellow, very juicy, very good. Succeeds Crawford's Early.
- Crockett's Late. (Crockett's Late White.) Medium size; white; flesh white, juicy and rich; hardy and very productive. September.
- Christiana. A new, very large, fine-looking yellow peach, ripening between Crawford's Late and Smock. Its large size, handsome appearance, and time of ripening combine to make it a very valuable peach.
- Chinese Honey. Medium size; oblong, with recurved point; white, with red cheek; of a delicious, honeyed sweetness; succeeds best further South. Ripens early.
- Chairs' Choice. Originated in Anne Arundel Co., Md. Fruit of very large size, yellow, with a red cheek; flesh yellow, firm and of good quality; tree a strong grower and a good bearer. Ripens just before Smock.
- Crimson Beauty. Clingstone; very large; white, with crimson nearly covering one side; flesh white; quality very good; very hardy and productive. Last of September.
- Early Silver. Large; melting and rich, with the vinous flavor of the White Nectarine, its parent; ripens early in August. One of the best.
- Elberta. An exceedingly large, high-colored yellow peach—a cross between Crawford's and Chinese Cling; juicy, well-flavored; said to be probably the finest yellow freestone in existence. Ripens early in August.
- Early Beauty. A large yellow freestone of Texan origin, said to be nearly equal to Foster in size, beauty and quality. Ripens about with Troth's Early.
- Family Favorite. A seedling of Chinese Cling, originated in Texas. Said to be "large, handsome, certain and prolific; flesh white; valuable for shipping, canning or drying. Freestone, ripening about with Crawford's Early.
- Ford's Late. (Chinese Strain.) Large; white, with carmine to the sun; flesh white, juicy; one of the best; freestone. October.
- Foster. A new, very large peach, resembling Crawford's Early in appearance, but is larger and somewhat earlier; tree hardy and productive. First of August.
- **Fox's Seedling.** Large; skin white, with a red cheek; flesh melting, sweet and good; a desirable sort for canning or marketing. First of September.
- bbe. Origin Pennsylvania. Tree a rapid grower and an enormous bearer; large; golden yellow, with a red blush; flesh firm, sweet and delicious; uniformly large; freestone. September 20th to October 1st.
- Golden Drop. Large, fine quality, handsome and hardy; valuable for market; a Michigan favorite; freestone. September.
- General Lee. Seedling of Chinese Cling, of same description, ten days earlier, and less
- inclined to rot; clingstone. July 25th.

  Geary's Hold-On. Large, yellow peach, seedling of the Smock; fruit large; pale lemonyellow; ripens a little later than Smock.



Elberta Peach. (See page 37.)

**Grand Admirable Cling.** Full medium size; skin white, nearly covered with red; a very handsome and excellent peach, and a good bearer. First of August.

Grosse Mignonne. (Royal Kensington.) Fruit large; dull white, with red cheek; flesh pale, juicy, with a very rich, high, somewhat vinous flavor; a free grower and good bearer; separates from the stone, which is small. First of August.

George the Fourth. Of large size and of the highest flavor; skin nearly white, with a red cheek; flesh pale, slightly red at the stone, melting, juicy, rich and excellent; tree very vigorous and moderately productive; freestone. Last of July.

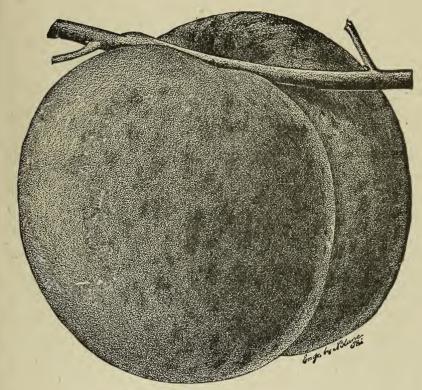
Golden Dwarf. (Van Buren's.) This very distinct and attractive variety originated in Georgia; the tree is of diminutive growth, seldom attaining more than four or five feet in height; foliage dense, which it retains until quite late in the season; fruit large; skin yellow, with a red cheek; flesh yellow, subacid, adhering firmly to the stone; quite hardy and free from disease. Ripens last of September.

Heath Freestone. A fine peach; fruit large; skin white; flesh juicy, rather tender, with a good flavor. Beginning of September.

**Harker.** (*Harker's Seedling.*) Large, red; flesh white, red at the stone, juicy, rich; one of the best flavored peaches grown, and well deserving of the high favor in which it is held by those who know it. Middle of August.

Heath Cling. This is, perhaps, the very best of the late clingstone peaches. Its very large size, beautiful appearance, high and luscious flavor, combined with its late maturity, and the long time it may be kept after taken from the tree, render it a most valuable sort for market. Fruit very large; skin pale yellowish white, with a faint blush or tinge of red in the sun; flesh greenish white, very tender and melting, exceedingly juicy, with a sweet, rich, high and luscious flavor; tree hardy and vigorous. Middle of September, and sometimes keeps a month after taken from the tree.

Hyne's Surprise. A very early peach of good quality; highly colored; similar to Waterloo, but earlier. June.



Family Favorite Peach. (See page 37.)

Hale's Early. An excellent peach when it succeeds, but unfortunately it is so liable to rot before and at time of ripening that it is not advisable to plant it in some places on that account; it does, however, succeed well in some sections, and mostly in the elevated lands towards and among the mountains, and there should have a place in the orchard; it is of handsome appearance, and well-flavored. Ripens about 5th of July.

Hill's Chili. A great favorite for market in the cold northwest, on account of its extreme hardiness and heavy bearing. Fruit medium size, oblong; skin yellow, shaded with dark red; flesh yellow, very rich and sweet; freestone. October 1st.

Italian Dwarf. Medium size; greenish white; flesh white, juicy and rich; freestone. This most singular tree will commence bearing when but twelve or fifteen inches high, and seldom exceeds three or four feet; foliage very large, deep green; a very desirable sort, ripening very late.

Jaques Rareripe. Very large, deep yellow; highly esteemed where known. Last of August.

Keyport White. White; medium to large; white-fleshed and white at the seed; slight blush on the upper side; tree a great bearer; popular as a canning variety; ripens with Smock.

Lady Parham. Of Southern origin. Fruit of medium size; skin greenish white, with sometimes a blush cheek; flesh white, juicy, vinous and highly flavored; a first-rate variety; freestone, Last of September.

Lady Ingold. A large, handsome, yellow freestone, ripening immediately after Hale's Early; resembles Crawford's Early in size and appearance; quality very good; promises to be a valuable acquisition.

La Grange. Large; greenish white, slightly reddened in the sun; flesh white to the stone, juicy, sweet and rich; the lateness and color of this peach make it a desirable sort for canning or preserving; freestone. Middle of September.

Large Red Rareripe. A most excellent peach, ripening early in August. Fruit large; skin greenish white, dotted, and with a beautiful, rich red cheek, flesh white, red at the stone, melting and juicy, with a sweet and rich flavor.

Large Early York. Is rather large and a beautiful peach, well worthy a place in every good collection. The tree is vigorous and productive; fruit dotted with red in the shade, deep red cheek to the sun; flesh nearly white, fine grained, very juicy, with a mild, rich, excellent flavor; a very valuable sort. Twenty-fifth of July.

Late Rareripe. Large; pale, greenish yellow, marbled and covered with reddish spots; cheek deep, dull red, mottled with fawn-colored specks; flesh white, but red at the stone; very juicy, melting, and of a rich, high flavor; very productive. Early in Sep-

tember.

Lemon Cling. A very large and beautiful lemon-shaped variety; light yellow, reddened in the sun; flesh firm, yellow, rich, with a vinous, subacid flavor; fine for preserving; tree very hardy and productive. Last of August.

Levy's Late. (Henrietta.) A new late clingstone, which originated in the garden of W. W. Levy, Washington, D. C. Fruit large, roundish; skin deep yellow, a shade of rich brownish red in the sun; flesh deep yellow, rather firm, juicy, half-melting, sweet; very good and a valuable variety. First to last of October.

Lord Palmerston. Very large; creamy white, with pink cheek; flesh firm, yet melting, very juicy and rich. Last of September.

Louise. (Early Louise) Origin same as that of Early Beatrice and Early Rivers. Medium size; bright red; melting, juicy and excellent; valuable. Middle of July.

McCallister. Large yellow freestone of first quality. September.

Moore's Favorite. A handsome, large peach, white, with blush to the sun; flesh white, tender and juicy; freestone. August.

 ${\bf ir.}$  A large yellow freestone; very valuable for canning and drying; seedling  $f_{\mbox{\scriptsize rom}}$  California. September.

Mountain Rose. A variety of very great value; very profitable for market, and is steadily growing in favor. Fruit large, roundish; skin whitish, nearly covered with light and dark, rich red; flesh white, slightly stained at the stone, juicy, sweet; separates freely from the stone. Ripens just after Troth's Early.

Rather large; skin creamy white, tinged with red in the sun; flesh slightly firm, white to the stone, melting and juicy, with an excellent flavor; tree vig orous, and bears fair crops; one of the very best for preserving, on account of the entire absence of red at the stone. Middle of August.

Mary's Favorite. Large; skin white, sometimes a purple cheek on exposed side; flesh white to the stone, juicy, sweet and rich; an excellent sort for canning. Last of August.

Nix Late. A large, late, oblong clingstone from Georgia; white, tinged with red; flesh white, of fair quality. October.

Oldmixon Freestone. Is a fine, large, productive variety, succeeding well in all localities, and well deserving of the high favor in which it is held as an orchard variety; skin yellowish white, with deep red cheek; flesh white, but red at the stone, tender, rich, excellent; indispensable. Middle of August.

Oldmixon Clingstone. Large; yellowish white, dotted with red on a red cheek; flesh pale white, very melting and juicy, with an exceedingly rich, luscious flavor; one of the most desirable clingstone peaches. Middle of August.

Orange Freestone. A large, handsome peach, of fine quality; skin white, with sometimes a faint blush; flesh juicy, tender, very good. First of September.

Picquet's Late. This very valuable late peach originated in Georgia, and has been disseminated over a wide extent of country, and succeeds well generally. It has been planted to a considerable extent in Maryland and Virginia, and has proved a very excellent and profitable sort. Fruit large and handsome; skin yellow, with red cheek; flesh yellow, melting, sweet, and of the highest flavor. We recommend it to the orchardist for its many valuable qualities. Ripens about with Smock.

**President.** Large; skin pale, yellowish green, with a red cheek; flesh white, but red at stone, juicy, melting, rich and high flavored. Middle of August.

Peen-To or Flat Peach of China. A very early clingtone, shaped like a biscuit, being flattened from stem to point; succeds well in Florida, but is of little value north of that

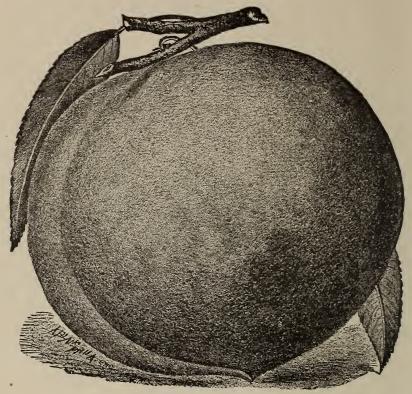
Rivers. (Early Rivers.) One of Rivers' seedlings, introduced from England. Large; color pale straw, with a delicate pink cheek; flesh melting, or rather dissolving, with a rich, racy flavor; ripens ten days later than Early Beatrice. The best peach of its season.

Red Cheek Melocoton. A famous old, well-known and popular variety, extensively cultivated as a market fruit; fruit large; skin yellow, with a deep red cheek; flesh red at the stone, juicy, with a good, rich, vinous flavor; productive; freestone. Middle of August.

Reeves' Favorite. Fruit large, roundish, with a fine red cheek; flesh deep yellow, red at stone, juicy, melting, with a good vinous flavor. One of the largest and handsomest peaches; should be in every orchard. First of September.

Ringgold Cling. Said to be larger and in every way superior to Heath Cling, with which it ripens.

- Raymond Cling. Large; greenish yellow, with a fine red cheek; flesh white, juicy, sweet and very good; well deserves a place in the orchard. Middle of September.
- chmond. A new, handsome, yellow peach of large size; flesh yellow, very juicy, melting, much sweeter than Crawford's Early; ripens a few days after that variety. Ouite an acquisition.
- Sallie Worrell. A new variety, from Wilson, N. C.; fruit very large, sometimes measuring fourteen inches in circumference; color creamy white, shaded and splashed with pale to deep red; flesh firm, very juicy and delicious; begins to ripen last of August, and continues several weeks; do not think it will do well north of Virginia; freestone.
- Susquehanna. A very handsome and valuable peach; originated on the banks of the Susquehanna river, in Pennsylvania; a great favorite wherever known. Fruit of the largest size, sometimes measuring twelve inches in circumference; skin rich yellow, with a beautiful red cheek; flesh yellow, juicy, sweet, with a rich, vinous flavor; the best of all the yellow-fleshed peaches; freestone; a moderate bearer. Twenty-fifth of
- way. A large late, yellow freestone, of English origin; handsomely mottled, with a brownish red cheek; flesh deep yellow, juicy, melting, rich; very productive; a variety growing more and more in favor with the orchardist. Ripens after Smock. Free.
- Smock Free. Rather large; yellow, with a red cheek; flesh yellow, red at the stone very productive; not of high excellence, but valuable as a market variety. In the Delaware and Maryland peach-growing district this variety is planted perhaps more extensively than any other sort, and large profits have been realized from it. It succeeds well in Eastern Virginia, but west of the ridge is not so valuable. Middle to last of September
- Steadley. Fruit medium, roundish, inclining to oblong; skin whitish, or creamy white shaded and mottled with light and dark red where fully exposed to the sun; freestone Ripens with and closely resembles La Grange.
- **Stump the World.** Large; creamy white, with a bright red cheek; flesh white, juicy and high-flavored; very productive; one of the best market varieties. Middle of August.
- **Sener.** Large; yellow, with deep red cheek; deep pink around the stone; sweet, rich and very juicy; free stone. October.
- Steven's Rareripe. Large, oblong; white, nearly covered with red, very highly colored and beautiful; heavy bearer, and free from disease; freestone. October 1st.
- Stonewall Jackson. Resembles General Lee in size and quality, about a week later; tree a compact grower; clingstone. August 1st.
- Schumacher. A very early peach, similar to Alexander in many ways; it is more highly colored and more showy; very good quality. June.
- Snow's Orange. Large, yellow; yery hardy and productive; valuable for market; freestone. September.
- Troth's Early. A very early and excellent peach, of medium size; whitish, with a fine, red cheek; flesh juicy, sweet and very good; one of the most popular and profitable varieties for early marketing. We are propagating it largely for that purpose. Middle of July.
- Tippecanoe Cling. Very large; skin yellow, with a fine red cheek; flesh yellow, juicy, with a good, vinous flavor. September.
   Tillotson. (Early Tillotson.) Well deserving of the high favor in which it is held; fruit medium size; skin dotted in the shade, dark, deep red in the sun; flesh whitish, red at the crops to which it partially adheres; injury rich and high flavored; one of the heart. the stone, to which it partially adheres; juicy, rich and high-flavored; one of the best early peaches for the South; does not do so well North. Middle of July.
- Wager. Large, skin yellow, with a red cheek; flesh yellow, juicy, and of fine flavor; a very certain and abundant bearer; valuable market sort. Last of August.
- Wonderful. From New Jersey. Large, almost globular, slightly pointed apex, uniform size and shape; rich golden yellow, partly covered with bright carmine; flesh yellow, rich, high flavored, firm; freestone. One of the best for shipping. October.
- Ward's Late. A fine variety; ripening last of August; vigorous and productive; fruit rather large; skin white, with a fine, crimson cheek; flesh white, juicy, melting and excellent; valuable for canning and for market purposes.
- A seedling; originated in Waterloo, N. Y. Size, medium to large; good specimens measuring nine inches in circumference and weighing five ounces; form red, deepening into dark, purple-crimson in the sun; flesh green in the shade, marbled red, deepening into dark, purple-crimson in the sun; flesh greenish white, with abundance of sweet, vinous juice; adheres considerably to the stone, like Hale's, Amsden, Ripens with Amsden.
- deatland. An extensive fruit grower says: "It is the largest, hardiest, best, most productive and handsomest of its season, filling a gap just before Crawford's Late, which it excels. Though crowded on the tree, the fruit was all large." This is high praise, and we hope that on further trial it will be found still worthy of it. See engraving, page 42.
- Yellow Rareripe, or Yellow Alberge. One of the earliest of the yellow-fleshed peaches; fruit of medium size; skin yellow, with a purplish red cheek; flesh yellow, red at the stone, juicy, sweet and pleasant; freestone. Twentieth of July.



Wheatland Peach.

Yellow St. John. (Fleita's St. John.) A large, roundish, yellow freestone, ripening a little before Troth's Early; skin orange-yellow, with a deep red cheek; flesh yellow, juicy, sweet and high flavored. This is the earliest good yellow peach we have, and must prove a profitable sort for the early market.

Below we give a list made up of very choice varieties, but do not recommend planting so many sorts in one orchard. One-half the number will give a succession throughout the peach season, and one that will render better satisfaction to the orchardist than if he were to plant them all. They will be found to ripen about in the order in which they are put down in the list:

Amsden, Beatrice, Rivers, Tillotson, Yellow St. John, Troth's Early, Mountain Rose, Amelia, Large Early York, Crawford's Early,

Chinese Cling, Oldmixon Free, Stump the World, Large Red Rareripe, Oldmixon Cling, Crawford's Late, Elberta, Grand Admirable Cling, Susquehanna, Mary's Favorite, Reeve's Favorite, Late Rareripe, Ward's Late, La Grange, Heath Cling, Smock Free, Salway, Picquet's Late, Bilyeu's Late, Levy's Late.

#### ADDITIONAL VARIETIES.

Some of the following sorts we can furnish in large quantities, but the most of them are only cultivated in small numbers, and but few trees of such varieties can be supplied. The select list will be found to contain a general assortment of the choicest kinds of the different seasons, and comprises as great a variety as will be found necessary or profitable:

Arkansas Traveler. Atlanta, Brenneman Cling. Bordeaux Cling, Bergen's Yellow, Bidwell's Early. Baltimore. Bower's Early, Briggs' Red May, Blood Cling, Bill Arp, Bishop's Early. Callaway Cling, Cadle's Favorite, Catherine Cling, Cooledge Favorite, Comet (Rivers), Druid Hill. Double Flowering (Crimson), Double Flowering (Pink), Double Flowering (Purple), Downing,

English Cling, Eldred Cling, Early Canada, Early Newington, Early Freestone, Eaton's Golden Cling. Gov. Garland. Goshawk. Gem Cling. General Green. Hyne's Surprise, Hill's Seedling, Harper's Early, Hawkin's Winter, Honeywell, Harvey's Seedling, Indian Blood, Jarrell's Late White, Leatherby's Late, Large Red Cling, Monstrous Pompone, Moomaw,

Nix's Late White. -Nanticoke. Newington Free, Old Newington Cling, Onward, Poplar, Prince of Wales. Parker's Late. Ruding's Late, Rose Hill Free, Saunders. Sharp's Early, Silver Medal, Shipley's Late, Shepherd's Early, Sleeper's Dwarf, Thurber, Temple White, Tuckahoe Late, Wilder. Wheeler's Late Kellom. White Blossom.

## SELECT PLUMS.

The Plum will grow vigorously in almost every part of this country, but it only bears its finest and most abundant crops in heavy loams, or where there is considerable clay; it will bloom and set a fine crop in a sandy soil, but in such soils it generally falls a prey to the curculio, and drops prematurely. There are, however, some varieties that succeed very well in such situations.

The *curculio*, a small brown insect, commences its depredations on this fruit as soon as it has attained the size of a pea, and continues its course of destruction until the crop is matured. It makes a small, crescent-shaped incision in the fruit, and lays its egg in the opening; the egg hatches into a worm, which feeds upon the fruit, causing it to fall prematurely. The only preventive that is known to succeed with any degree of certainty is to place a white sheet under the tree early in the morning, when cool, and by jarring the tree suddenly the insect falls upon the cloth, and, being stiff, can easily be caught. By commencing this as soon as the fruit is formed and continuing it daily for about three weeks, you may be able to save a good crop.

Exemption may not be secured from black fungus, or knot, but if branches affected by it are promptly removed and burned, and the trees are given careful cultivation, the injury to the trees will seldom be great.

**Bingham**. Large, handsome and excellent; skin deep yellow, spotted with red on sunny side; flesh yellow, adhering to the stone; juicy, and of rich and delicious flavor; productive. First of August.

Blackman. A seedling of Wild Goose. Originated near Nashville, Tenn., by Dr. Blackman. Tree is a fine grower, and resembles the peach very much in habit and foliage, tree from which it was a seedling having stood near a peach; fruit similar to Wild Goose in size and color, but ripening later and of better quality; flesh firm and juicy. Will no doubt prove a profitable variety for market.

Bradshaw. Very large, dark violet-red, juicy and good; tree vigorous and very productive. July.

Coe's Golden Drop. One of the largest, most beautiful and valuable of late plums; light yellow; flesh yellow, firm, rich and sweet; adheres to the stone; productive. Last of August.

Cherry, or Myrobolan. A beautiful plum, of small size; color lively red; flesh greenish, melting, soft, very juicy, with a pleasant, lively, subacid flavor; adheres closely to the stone; generally escapes injury from the curculio. First of July.

Damson. (Common Damson.) Superseded by Shropshire Damson. September.

Fellenberg. (Italian Prune.) Medium size; dark blue; flesh juicy, sweet and good; separates from the stone. Last of August.

**German Prune.** A valuable plum, of fair quality for the table, but most esteemed for drying and preserving; fruit long, oval; skin purple, with a thick blue bloom; flesh firm, green, sweet and pleasant; separates from the stone.

**Gueii.** (Blue Magnum Bonum.) A large, handsome plum; flesh yellowish green, rather coarse, sweet and pleasant; valuable for market. September.

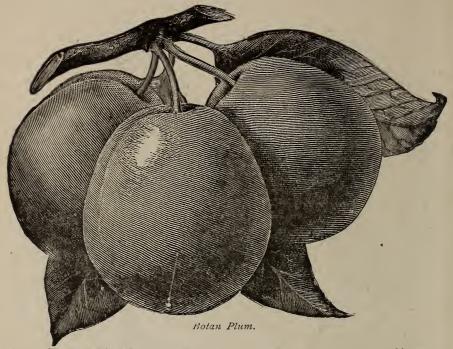
- **General Hand.** Very large; skin deep golden yellow; flesh coarse, pale yellow, moderately juicy, sweet and good; tree grows vigorously, and is very productive; separates from the stone. August.
- **Green Gage.** Small; yellowish green; flesh pale green, melting, juicy, exceedingly sweet and rich, and unequaled in flavor; one of the richest and best flavored plums; separates from the stone; growth slow, and young trees are hard to raise in moist localities. Aug.
- Jefferson. Large; yellow, with a red cheek; flesh orange, very rich, juicy and good; separates from the stone; tree a slow and poor grower. August.
- Lombard. Medium size; skin delicate violet, dotted thick red; flesh deep yellow, juicy and pleasant. One of the hardiest, most productive and valuable plums. Succeeds well everywhere, even on light soils. August.
- Miner. Medium; oblong; deep red, showy and handsome; flesh firm, skin thick, excellent for cooking; tree a free grower and prolific. Late.
- Marianna. That eminent pomologist, Prof. T. V. Munson, of Texas, describes this plum as follows: "A rapid, regular grower; fruit round, large as Wild Goose; excellent (I speak from experience), deep, bright red; stone small; hangs on tree well; two or three weeks earlier than Wild Goose; as free from curculio as any variety known; very prolific. This variety has properties which will cause it to become one of the most popular kinds ever introduced. It has been tested for twelve years by the originator, Mr. Charles N. Eley, with uniformly excellent results."
- **Newman.** Medium; oblong; skin a beautiful glossy red color, with delicate purple bloom; flesh a little coarse, but juicy; tree productive and a free grower.
- Niagara. Very large; reddish purple; a superb plum; the tree is an erect, strong grower, and bears well; very valuable for home use and market. August.
- Pottawottamie. Western origin; of Chickasaw family; yellowish red; regular and abundant bearer. July.
- Pond's Seedling, or Font Hill. One of the most showy plums; very large; light red, changing to violet; flesh yellow, sugary, but rather coarse; tree very vigorous, and a most abundant grower. August.
- Prince Englebert. Large, oblong oval; skin very deep purple, sprinkled with brown dots and covered with a deep blue bloom; flesh yellowish green, juicy, sugary; separates from the stone; from Belgium; tree very vigorous; one of the best. July.
- Prince's Imperial Gage. Rather large; greenish yellow; flesh greenish, juicy, rich and delicious; sometimes adhering to the stone; tree vigorous and very productive, a single tree near Boston yielding fifty dollars' worth of fruit in one year. This variety is particularly adapted to dry, light soils; valuable. August.
- Prince's Yellow Gage. Above medium size; skin yellow; flesh deep yellow, rich, sugary and melting; parts freely from the stone. Its great hardiness and productiveness, joined to its rich, sugary flavor, make this a favorite sort. First of July.
- **Peach Plum.** Very large; light brownish red; flesh rather coarse, juicy, sprightly; free from the stone. Esteemed for its large size, handsome appearance and early ripening. July.
- Quackenboss. Large, deep purple, covered with bloom; flesh greenish yellow, sprightly, a little coarse grained; a strong grower and good yielder. September 1st.
- Robinson. Small, slightly oblong, clear bright red, sweet and juicy; an enormous bearer. August.
- Reine Claude de Bavay. Large; greenish yellow, spotted with red; flesh rather firm, juicy, sugary, rich, of fine quality; adheres slightly to the stone; a vigorous grower, very productive, and a valuable addition to the late varieties. September.
- Red Magnum Bonum. Large; deep red in the sun; flesh greenish, coarse, firm; subacid; valuable for cooking; productive. August.
- **Richland.** A native of Bucks Co., Pa. It seems to be nearly curculio proof; fruit small, light purple, sweet and agreeable; excellent for cooking. Early.
- **Spaulding.** Seedling of some European variety; almost curculio proof; when injured the wound heals quickly and the fruit ripens perfectly; the fruit is large, yellowish green, sweet and rich, with white bloom; quality excellent; fruit parts from the stone readily; a superb plum; tree a strong grower and early and abundant bearer. August 15th.
- **Shipper's Pride.** This valuable new plum of the Damson type originated in Western New York. Large size; purple, firm and sweet; first class shipper. September.
- **Shropshire Damson.** An improvement on the common Damson, being of the largest size of its class; dark purple; highly esteemed for preserving; tree vigorous and enormously productive. September.
- Smith's Orleans. Large; reddish purple, becoming very dark; flesh deep yellow, slightly firm, juicy, rich, nearly first rate; adheres to the stone; very productive. August.
- **Wangenheim.** Fruit medium, oval; skin deep purple, covered with a thick blue bloom; flesh rather firm, greenish yellow, juicy, sugary, rich; separates from the stone; one of the best of the Prune class.



**Washington.** (Bolmar's.) Very large; skin yellowish green, often with a pale red blush; flesh yellowish, firm, very sweet and luscious, separating freely from the stone. There is perhaps, not another plum that stands so high in general estimation in this country as the Washington. Its great size, its beauty and the vigor and hardiness of the tree are qualities which claim for it a place in every good collection. August.

Wild Goose. Medium size; oblong; bright vermilion red; juicy, sweet, of good quality; cling; productive, and nearly proof against the curculio. The most profitable variety for market in the South, and deserves more extensive planting there, as well as in the Middle states. July.

**Weaver.** From Iowa; popular at the West because of its ability to withstand the extremely severe winters, when the fine sorts fail; fruit rather large, purple, with a blue bloom; quality good; tree a vigorous grower and very productive. August.



Yellow Egg. (White Mignum Bonum.) A very popular fruit on account of its very large size and splendid appearance; its slight acidity renders it valuable for making sweetmeats; skin yellowish, covered with a white bloom; flesh yellow, adhering closely to the stone; rather acid until it becomes very ripe. Last of July.

#### ADDITIONAL LIST OF PLUMS.

Bassett's American, Beauty of Naples, Columbia, Domine Dull, DeCaradeuc, Forest Rose, Forest Garden, Frogmore Damson, Golden Beauty, Hudson Gage, Hudson River Purple Gage, Huling's Superb, Indian Chief Langdon, Lawrence Favorite, Middleburg, Monroe, McLaughlin, Pottawottamie, Peter's Yellow Gage, Staunton, Sweet Botan, Union Purple.

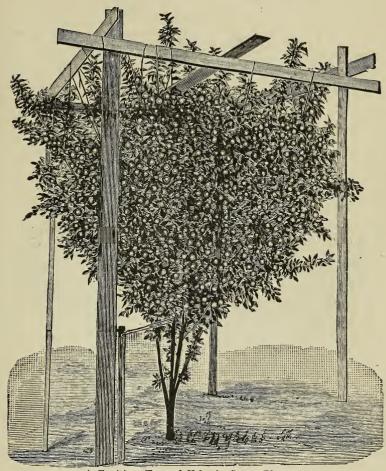
#### JAPANESE OR ORIENTAL PLUMS.

This new strain of Plums has been received with general favor, and in the South, where the European kinds do not succeed as well as at the North, they have proved a blessing. In some sections where the Chickasaw or native kinds (Wild Gobse, etc.) only are successful, the Japanese kinds are especially welcome, as they rate up in quality quite well with the very best European varieties.

The Japanese Plums, with the exception of one kind, are extremely hardy and vigorous, bearing early and abundantly annual loads of rich, luscious fruit, ripening from early in June to September.

One very valuable quality of the Japanese Plum is, that the wound made by the curculio (an enemy to Plum culture everywhere), does not seem to affect the Japan kinds to the same extent as European and other kinds; while they are not curculio proof entirely, yet for some reason the wound soon heals and the fruit matures perfectly. This may be attributed to the extremely strong and vigorous nature of both tree and fruit, as it appears to be able to resist and outgrow the trouble.

Botan or Abundance. Lemon-yellow ground, nearly overspread with cherry, with heavy bloom; flesh yellow, very juicy; subacid, with apricot flavor; highly perfumed; stone small; the tree is exceedingly hardy and bears regularly; nearly cuiculio proof; early and heavy bearer; the best of its class. First of August.



A Fruiting Tree of Kelsey's Japan Plum.

**rbank.** Resembles the Abundance in many ways; globular, large, cherry red, with slight lilac bloom; flesh deep yellow, very sweet with pleasant and agreeable flavor; strong grower; bears early, often at second year. September 1st.

Very similar to Botan, larger but not so sweet; quality very good; clingstone. Inly.

Chabot. Fruit greenish purple, oblong, large and firm; tree a strong grower. August.

lsey. By great odds the best Plum for the South; unfortunately, it is not entirely hardy north of Maryland. After thorough testing it has proved itself to be of first quality in every way; the fruft is large, heart-shaped, golden yellow, sometimes splashed with reddish purple; the flesh is firm, yellow, rich and juicy, with elegant flavor; the pit is small, and parts freely from the flesh; good for home use or shipping. August.

Masu. Said to be very large and delicious; tree a strong grower.

Ogon. Large golden yellow, with faint bloom; firm, sweet and of good quality; freestone;

first-rate for canning; tree vigorous grower. Last of July.

nonii. (Apricot Plum.) Origin China. Fruit large, tomato-shaped, cinnamon-red color; flesh is firm, sweet, aromatic, the flavor is delicious and not found in any other plum, being similar to that of a pineapple, nectarine and banana; a beautiful and valuable plum. We believe it has come to stay; tree a strong grower, bearing young. Simonii. (Apricot Plum.) August

Satsuma or Blood Plum. Large, round; skin and flesh dark purplish red, with blue bloom; seed exceedingly small; flesh firm, of good quality, fine playored; very hardy and strong grower, adapted mainly to the Southern states but does well in the North. August.



Black Tartarian.

# SELECT CHERRIES.

The Cherry succeeds on most soils and in nearly all localities throughout this country, but attains its greatest perfection upon those of a light, gravelly or sandy nature, provided they are in good condition. In planting Hearts and Bigarreaus, avoid wet or damp situations. The Dukes and Morellos will bear more moisture, but will flourish best in a soil that grows the others to the greatest perfection. We have dwarf trees grown upon the Cerasus Mahaleb stock, a variety of Cherry imported from Europe, which is rather more hardy than our common sorts. When worked upon this stock they are well suited to gardens or smal enclosures, as they occupy but little space, and come into bearing quite early.

#### HEART AND BIGARREAU CHERRIES.

**Bigarreau**, or **Graffion**. (*Yellow Spanish*.) Very large, often an inch in diameter; pale yellow, with a handsome, light red cheek to the sun; flesh firm, with a fine, rich flavor. This variety, though not of the highest excellence, has become, from its great size, beauty and productiveness, a general favorite. July.

Black Tartarian. Fruit of the largest size, frequently measuring an inch in diameter; flesh dark, half tender, with a peculiar liver-like consistency, rich, nearly destitute of acid, of fine flavor. The vigorous growth and great productiveness of the tree, and the large size and mild, sweet flavor of the fruit, render this variety a general favorite. June.

Black Eagle. Large; black, very rich and high flavored. The tree grows well, and is very productive. June.

Black Heart. Rather above medium size; flesh tender, juicy, with a rich, sweet flavor; very productive. June.

Belle d'Orleans. A foreign variety; fruit of medium size; color whitish yellow, half covered with pale red; flesh tender, very juicy, sweet and excellent; tree vigorous and productive; a valuable early cherry. May.

Cleveland. Large; clear red and yellow; juicy, sweet and rich. June.

Coe's Transparent. Medium size; pale amber color, reddened in the sun, with peculiar pale spots or blotches; flesh very tender, melting and juicy, with a delicate but sweet and excellent flavor; very productive and valuable. Beginning of June.
 Downer's Late Red. Medium size; light red, amber in the shade; flesh tender, melting, rich, with a very high, sweet flavor. A good late sort. July.

Downton. Large; light cream color, stained with red; flesh yellowish, tender, adhering slightly to the stone; rich and delicious. A beautiful and excellent cherry. June.

Elton. This is certainly one of the finest cherries, in all respects; its large size, early maturity, beautiful appearance, luscious flavor and productiveness render it universally esteemed; fruit large, pale yellow, blotched and shaded with red; flesh firm, becoming tender, juicy, rich and high flavored; very productive. May and June.

Early Purple. An exceedingly early variety, ripening in May; fruit of medium size; color dark red, becoming purple at maturity: flesh purple, tender, juicy, with a rich

and sweet flavor; indispensable as an early variety; productive.

Florence. This most excellent cherry was brought from Florence, Italy, and has shown itself to be one of the largest and handsomest sorts here; fruit very large; amber yellow, marbled and mostly covered with bright red; flesh amber color, very firm, sweet, rich flavor; hangs long on the tree, and will keep well several days after gathering. Ripens in July.

Governor Wood. One of the best of Dr. Kirkland's seedlings, and deserves a place in every good collection. Fruit large; skin light yellow, shaded with bright red; flesh nearly tender, juicy, sweet, rich and delicious; tree vigorous and productive. June.

Knight's Early. Large; black; flesh purple, tender, juicy, with a very rich, high, excellent flavor. Considered one of the best cherries in quality; productive. First of June.

Kirtland's Mary. Large; light and dark red on yellow Large; ground; rich, juicy, sweet, high flavored. One of the best.

Luelling. This variety originated in Portland, Oregon, and is supposed to be a cross between the Black Tartarian Napoleon Bigarreau. Fruit in color and appearance resembles the Black Tartarian, but is much larger; tree a moderately vigorous grower, but rather tender.

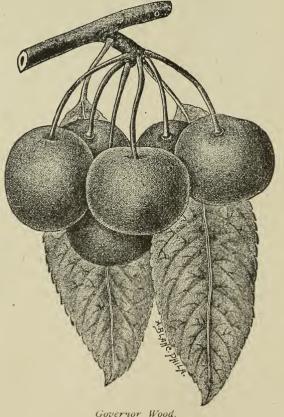
Louis Philippe. Large, dark red, almost black; sprightly, mild acid; stone small. July.

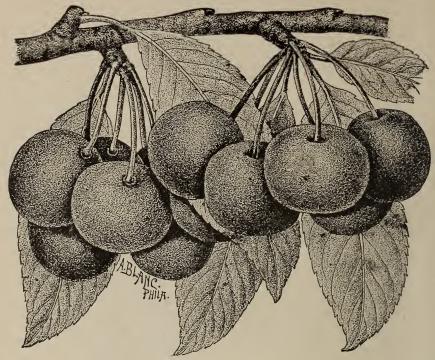
Monstreuse de Mezel. (Great Bigarreau.) French origin; very large, brown; firm, free grower. Middle of July.

Napoleon Bigarreau. Is one of the best of the firm-fleshed cherries; it is of the largest size, often measuring over an inch in diameter; well fla-vored, handsome and productive; skin pale yellow, becoming amber in the shade, richly dotted with deep red, and with a fine, marbled, dark crimson cheek; flesh very firm, juicy, with a very good flavor; profitable for marketing. June.

Ohio Beauty. Large; red; brisk, juicy; flesh tender, brisk, juicy; productive. Middle of June.

Rockport Bigarreau. Large; deep brilliant red; flesh rather firm, juicy, sweet, rich, with an excellent flavor; a very desirable and profitable cherry. Beginning of June.





Dyehouse Cherry.

Schmidt's Bigarreau. Very large, deep black; flesh dark, tender, very juicy; fine flavor; productive. July.

Sparhawk's Honey. Medium size; light red; sweet, with a large stone; hangs long on the tree; tree a strong grower. Late July.

Tradescant's Black Heart. (Elkhorn.) Large; skin deep black, glossy; flesh very solid and firm, dark purple, moderately juicy. July.

Windsor. Origin Canada; fruit large, liver-colored; flesh firm and of fine quality; tree very hardy; a valuable late variety. July.

### DUKE AND MORELLO CHERRIES.

The Dukes and Morellos are not so vigorous and upright in their growth as the Hearts and Bigarreaus, forming low, spreading heads, with acid or subacid fruit.

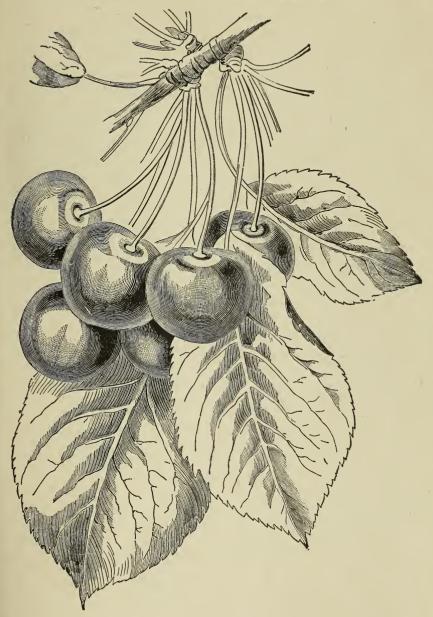
Belle de Choisy. Medium size; skin thin, translucent, showing the netted texture of the flesh; flesh pale amber, mottled with yellowish red, becoming a fine cornelian red in the sun; flesh very tender, juicy and melting, with a fine, mild, subacid flavor, becoming nearly sweet; a regular, moderate bearer; deserves a place in every good collection. June.

Belle Magnifique. Large; color fine, rich red; flesh juicy, tender, with a sprightly subacid flavor; tree moderately vigorous and productive; a beautiful and excellent variety; one of the best of its class. July.

Carnation. Large; yellowish white, mottled and marbled with fine orange; flesh tender, juicy, and, when fully ripe, of a sprightly and good subacid flavor; a moderate, regular bearer; superseded by other sorts in its class. July.

Dyehouse. In hardiness and general appearance resembles Early Richmond, but is of finer quality and several days earlier; it produces very regular annual crops; fruit medium; skin bright red, darkened in the sun; flesh soft, juicy, tender, sprightly, subacid, rather rich; resembles both the Morello and Duke ingrowth, wood and fruit; it is very productive. We consider it superior to Early Richmond.

Eugenie. (Empress Eugenie.) Large, dark red; flesh juicy, rich; tree hardy and productive.



Reine Hortense Cherry. (See page 52.)

English Morello. Above medium size; skin dark red, becoming nearly black; flesh juicy, subacid, rich. July.

Early Richmond, or Kentish. Medium size; red; flesh melting, juicy, and at maturity of a rich acid flavor; very productive; fine for cooking. Commences ripening last of May, and hangs long on the tree.

Late Duke. Large; light red; flesh pale amber, subacid; desirable as a late cherry; productive. Ripens gradually from the middle to the last of July.

Lieb. Said to be very hardy, bearing abundantly annually; the fruit is as large, or larger than Early Richmond; a little later, less acid, and of better quality.

May Duke. Medium size; dark red; melting, rich and juicy; an old and popular sort. Ripens soon after Early Purple Guigne.

Montmorency Large-Fruited. Fruit large, and the finest flavored of any in this class; tree a free grower, hardy and prolific.

Montmorency Ordinaire. A beautiful, large, red, acid cherry; larger than Early Richmond, and fully ten days later; very prolific and hardy; a variety of great value; tree a free grower.

Olivet. A new French variety, imported in 1875. It belongs to the Duke class, and takes a place not occupied up to the present in the list of early cherries. The Olivet cherry is a large, globular, very shining, deep red sort; the flesh is red, with a rose colored juice; tender, rich and vinous, with a very sweet, subacid flavor. It ripens in May or early in June. It posseses the fertility of the best of the Duke tribes, and is, perhaps, the largest of that class.

Reine Horteuse. A French cherry of great excellence. Large, bright red; flesh tender, juicy, very slightly subacid and delicious; tree vigorous and productive; one of the very best cherries. Last of June.

Shannon. Above medium size; dark, purplish red; tender, juicy and acid. First of July-

### ADDITIONAL LIST OF CHERRIES.

Double Flowering, Hovey, Monstreuse de Mezel, Ostheim, Royal Duke, Sparhawk's Honey, Triumph of Cumberland, Waterloo.

## SELECT APRICOTS.

This beautiful and excellent fruit needs only to be known to be appreciated. It ripens a month or more before the best early peaches, and partakes largely of their luscious flavor. The tree is even more hardy than the peach, and requires about the same treatment. To make a crop more certain, plant on the north or west side of a wall, fence or building.

Alexis (Russian No. 4). Large to very large; yellow, with red cheek; slightly acid, rich and luscious. July 15th.

Alexander (Russian No. 2). Very large, oblong; yellow, flecked with red; flavor sweet and delicate. July 12th.

Catharine (Russian No. 5). Good bearer; medium size; yellow; subacid. July 20th.

Gibb (Russian No. 1). Medium size; subacid; rich, juicy; yellow; the best early apricot. June 20th.

J. L. Budd (Russian No. 6). Large size; white, with red cheek; sweet and juicy; very fine; the best late variety. August 1st. Nicholas (Russian No. 3). Very prolific; fruit medium to large, sweet and melting.

July 10th.

**Breda.** Small, round; dull orange in the sun; flesh orange-colored, juicy, rich, vinous and high-flavored; parts from the stone; tree very hardy and productive. July.

Black. Small or medium; pale red, or nearly black in the sun; flesh pale red next to the skin, yellow near the stone, juicy, with a pleasant, slightly astringent flavor; adheres to the stone; hardy and productive. July.

De Coulange. Large; of fine quality. July.

Early Golden. (Dubois' Early Golden.) Small; pale orange; flesh orange, juicy and sweet; tree hardy and productive; separates from the stone. Last of June.

Harris. Origin New York. A new kind of great promise; very hardy; blooms late; a sure bearer; elegant golden yellow color.

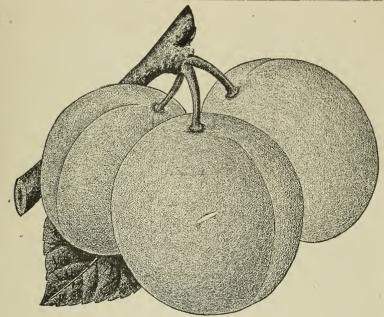
Hemskirke. Large, roundish; orange, with a red cheek; flesh bright orange, rich, juicy, sprightly, with a plum-like flavor. July.

Kaisha. Medium size; skin pale yellow, mottled and tinged with red in the sun; flesh tender, juicy, pale yellow, sugary; freestone. July.
 Large Early. Large size; orange, with a red cheek; flesh sweet, rich and juicy; separates from the stone; tree vigorous and productive; one of the very best of the early sorts. Last of June.

Moorpark. One of the largest and finest apricots; yellow, with a red cheek; flesh rather firm, orange, parting from the stone, sweet, juicy and rich, with a luscious flavor. July. Montgamet. (Alberge de Montgamet.) Fruit medium size; skin pale yellow, with a

slight tinge of red on the side next to the sun; flesh firm, juicy; one of the best. Early.

Peach. Very large; yellowish orange, and mottled with dark brown to the sun; flesh rich yellow, juicy, with a rich, high flavor. This is justly esteemed one of the very best apricots; productive. First of July.



Russian Apricot.

Roman. Medium size; pale yellow, with a few red dots; flesh very fine-grained, half-juicy, with a mild, pleasant flavor. July.Royal. Large; skin dull yellow, with an orange cheek; flesh pale orange, firm and juicy;

free from the stone, July.

Russian. Introduced from Russia, and is claimed to be very hardy; fruit medium size,

Ambroise. This is a large, early apricot; almost the size of and earlier than the Moorpark; one of the very best.

Turkey. Medium size; skin deep yellow in the shade, mottled with brownish orange in the sun; flesh pale green, firm and juicy; separates from the stone. July.

# SELECT NECTARINES.

The Nectarine requires the same culture, soil and management as the Peach, from which it differs only in having a smooth skin like the Plum.

Boston. Large; vellow, with red cheek; flesh vellow, sweet and of pleasant flavor; freestone. August.

stone. August.

Downton. Large; pale greenish, with a violet-red cheek; flesh pale green, slightly red at the stone, melting, rich and excellent; one of the best; freestone. August.

Early Violet, or Violette Hative. Medium size; yellowish green, with a purplish red cheek; flesh pale green, melting, rich and highly flavored; freestone. July.

Elruge. Medium size; greenish yellow, with a dark red cheek; flesh pale green to the stone, sometimes stained with red there, melting, very juicy, with a rich, high flavor; this is one of the best and most celebrated of nectarines; freestone. August.

Golden Cling. Medium size; skin fine, bright waxen yellow, with a slight scarlet cheek; flesh orange-yellow, sweet and good. August.

Hardwicks Seedling. Large: pale green with a violet-red cheek; flesh pale green.

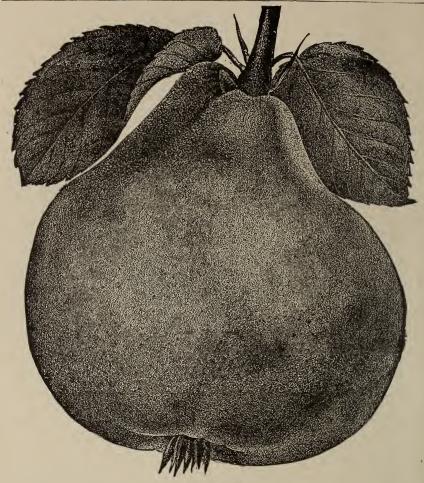
Hardwicke Seedling. Large; pale green, with a violet-red cheek; flesh pale green, slightly reddened at the stone, juicy, melting, rich and high-flavored; this is regarded as one of the best and hardiest of nectarines, and an excellent bearer; freestone. Aug.

Hunt's Tawny. Medium size; dark red on pale orange; flesh deep orange, juicy, melting, rich and very good; hardy and productive; the best very early nectarine; freestone. July.

Pitmaston Orange. Large size; skin rich orange-yellow, with a dark, brownish red cheek; flesh deep yellow, but red at the stone, melting, juicy, rich, sweet and of excellent flavor; freestone; best yellow-fleshed nectarine. Middle of July.

Stanwick. Rather large; green, with a violet-red cheek; flesh white, tender, juicy, rich and sugary; clingstone. Last of July.

Fruit large; skin greenish yellow, crimson on the sunny side; flesh rich, sweet; one of the best.



Orange Quince.

## SELECT QUINCES.

This valuable fruit is too well known to require an introduction. It has long been considered "near the top" among fruits. The Quince succeeds best on a deep, moist, fertile, heavy, clay-loam soil.

Angers. Strong, rapid-growing sort; fruit large size and fine quality.

**Champion.** This variety originated in Georgetown, Conn.; said to be larger than the Orange. Fair; smooth, of fine quality, and late keeper.

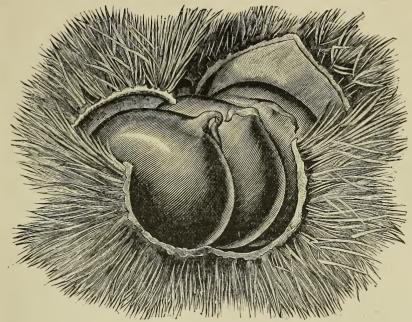
Meech's Prolific. A new variety recently introduced by Rev. W. W. Meech, of Vineland, N. J. The late Chas. Downing says: "It is certainly a promising variety, and if it proves as good in other localities and continues its present good qualities of fair fruit and good size, as in the specimens you sent me, it will be an acquisition to the quince family.'

Orange, or Apple. Large, roundish, with a short neck; color light yellow; tree very productive; this is the most popular variety in the country; a great bearer. Ripens in October.

Portugal. This is rather superior to the Orange or Angers, but, unfortunately, it is a shy

bearer; fruit largest size; yellow; flesh more juicy and less harsh than most others.

Rea. (Rea's Scedling.) A variety of the Orange quince; of large size, a strong grower, of good quality, and bears well.



Japan Mammoth Chestnut.

## NUT-BEARING TREES.

All over the country there is a rapidly growing interest in nut culture. The demand for nuts is great; the markets are poorly supplied, and the prices too high. Palatable and wholesome as they are, they should become a common article of food here, as in Europe.

Numerous experiments show plainly that nut culture of nearly every kind can be carried on in the United States with entire success; in fact, statistics plainly prove that a well cared for nut orchard is a "gold mine," indeed. We have accounts of single trees paying from \$25 to \$50, and many cases are noted where an acre clears from \$150 to \$600 annually.

A large portion of the nuts on our markets are imported. We are sure, that with proper care and culture, we can raise enough to have plenty at home and export largely at paying prices. Most kinds of nuts are planted 30 feet apart, like apple trees, and require about the same general culture.

## CHESTNUTS.

Japan Mammoth. This valuable new nut is attracting widespread attention. It claims superiorlty over all others because it is larger, sweeter, better; bears young and abundantly; like all valuable fruits now-a-days, it is necessary to graft to secure and maintain the most reliable kinds; the tree is dwarf in habit, hardy and ornamental.

Spanish, or Marron. (Castanea Vesca.) Originally introduced from Asia Minor into Europe; a vigorous grower, and forms a handsome head for lawn planting; a valuable species, both for ornament and fruit; the fruit is much

larger than the American variety; very sweet and excellent when boiled or roasted. Bears early.

American Chestnut.

American. (Castanea Americana.) The well known native variety; a stately tree, with broader leaves than the European, and producing smaller nuts but a large quantity of them; both useful and ornamental; the timber is very useful for many purposes.



Spanish Chestnut.

#### WALNUTS.

English. (Madeira or Persian.) A fine, lofty-growing tree with a fine, spreading head and bearing crops of large and excellent nuts; the fruit in a green state is highly esteemed for pickling,

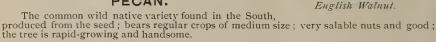
and the great quantity of the ripe nuts annually imported and sold here attest to its value; the tree is peculiarly well adapted to the climate of the South, and deserves extensive cultivation.

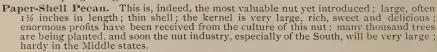
American Black. This is the common native variety. The nuts are excellent and always desirable; besides, the wood is very valuable for many uses.

#### SHELLBARK.

A species of the hickory. The nut is small, rather flat-with thick shell; it is very rich, sweet and delicious; very desirable.

### PECAN.





### FILBERTS OR HAZEL NUTS.

We have the best English varieties; the nut is medium size, oblong, very sweet; the tree is of bushy habit, growing from 6 to 8 feet high; very hardy almost everywhere; early and abundant bearer; very satisfactory.

#### BUTTERNUTS.

A handsome, rapid-growing, luxuriant, tropical looking tree; very ornamental and productive; the nuts are some-



Japanese Hardy Orange.

thing like black walnuts, but longer and flat; the kernel is much sweeter and rich and more delicate; fine flavor.

#### HICKORY NUT.

This valuable native tree, besides producing a large, sweet nut in great quantities, is especially valuable where wood of great strength and durableness is wanted; it is a handsome shade tree.

#### ALMONDS.

Hardshell, Softshell or Ladies'.

### JAPANESE HARDY ORANGE.

(Citrus trifoliata.)

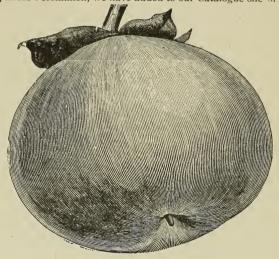
This valuable new fruit from Japan, after thorough testing has proved itself en-tirely hardy in any part of the United States; it has borne regularly here for several years; the fruit, while not to be classed with first class Florida oranges, is nevertheless attractive and valuable; it is of small size and much like the ordinary orange; the flavor is good, subacid, very sprightly, valuable to use in place of the lemon, and is elegant to preserve.

# JAPANESE PERSIMMON.

By the introduction of the Japanese Persimmon, we have added to our Catalogue one of

the most beautiful and luscious fruits, and one that will be greatly appreciated when better known.

In Japan, where large quantities are grown, it stands in the highest favor. It is not only used in a fresh state, but is preserved as the fig. and is fully equal to that fruit in point of excellence. There are a great many varieties, varying in size, shape, color, quality and season of ripening; some are shaped like a tomato, others are oblong and pointed at the apex; the color varies from a bright orange-red to a lemon-vellow; the flesh when ripe is soft, with a pleasant, sweet, slight apricot flavor. The smallest sorts we have grown are double the size of our natives, while others have pro-



Japanese Persimmon.

duced fruits that measured over eleven inches in circumference and were without seeds. The tree is wonderfully productive, and comes into bearing very young; we have had one-year-old trees reach us late in the spring from Japan, and next season they would bear a profusion of fruit. Trees three feet high, standing in nursery row, have matured twenty-one specimens, and others about five feet have borne over fifty. We know of no tree that makes so fine a show in fruit as the Japanese Persimmon. The tree is of itself very striking in appearance, with its fine, shining foliage, and when laden with its beautiful red or golden yellow fruit, it must be seen to be appreciated; we have not the language to convey an idea of its beauty. Apart from the value of its fruit, it well deserves a place on the lawn among the ornamentals.

The trees are not entirely hardy north of the Potomac, though we have had them standing unprotected near Baltimore for five years, where they have borne well, and even came through the past winter unhurt.

The climate of Northern Japan is about as cold as Northern New York, snow often falling there to great depth in November and remaining until April, yet the Persimmon flourishes there, and we do not see why it will not stand in this country as far north as Pennsylvania.

Out of the great number of varieties grown in Japan, it is presumed that we will find some that will do well as far north as Philadelphia at least, and we think they merit a trial still farther north.

Professor Asa Grav writes: "The Persimmon has great capabilities, and will give fruit of a type wholly distinct from any we possess in temperate climates. He who has not tasted Kaki (the Japanese Persimmon) has no conception of the Diospyros genus."

Professor W. E. Griffis says in his book, "The Mikado's Empire:" "As regards the value of the Japanese Persimmon, there can be but one opinion. The tree itself is one of the handsomest of fruit trees, and in the fall, with its golden-hued fruit hanging to the branches after the leaves have fallen, forms a beautiful and striking picture in a landscape."

The Pacific Rural Press says: "When cut, it presents a mass of rich, jelly-like sweet, with a flavor reminding one of both the apricot and the plum. The flavor is simply delicious beyond expectation, and we begin to realize that the praise bestowed on this fruit is not beyond its merits."

A correspondent from Memphis, Tenn., writes us on receipt of a cut of the fruit: "The plate you sent in your circular of the Japanese Persimmon, I must tell you, is a very small specimen, and does that fruit quite an injustice. Several trees have fruited with me, and the fruit is the same size and shape as a full, medium-sized orange, fully one-third larger than your plate represents; and if there is any one fruit more luscious. more delightful and more tempting to the taste in the fruitless winter months, I have yet to know it. We eat them at Christmas and on, and can keep them until the end of February—then they are in perfection. In gathering, I cut twigs and hang fruits up by them; have kept them till March."

## SELECT GRAPES.

Marshall P. Wilder, president of the American Pomological Society, in his address to that society at Boston, in 1881, said of the Grape: "No other fruit, unless it be the Strawberry, now attracting so much attention, and perhaps no other, if we except the Apple, is of more importance, as a source of revenue or an article of luxury for our tables, than the Grape. In the whole circle of our pomology progress there is no fruit which excites so much enterprise and interest, so rapidly being extended, or which gives such promise of success, as the culture of the Grape; and should this enterprise continue for fifty years to come, we can hardly estimate its value as a revenue in our country. With every succeeding year, new and valuable varieties are coming to notice, either adapted to special locations or purposes, or for general cultivation. Nor is it too much to hope that ere the close of this century, with our present skill, we shall produce varieties that will rival the choicest kinds of most favored climes. Nor do I doubt that we shall, in time, produce varieties which will compare favorably with, and perhaps be equal in size, beauty and excellence to the Cannon Hall or other Muscats, now so highly praised for their peculiar aroma. The Pocklington in size and beauty is an approach to this. Nor is it unreasonable to suppose but we may have a Grape, if we have it not now in the Duchess, that is as well adapted to exportation as the White Malaga, and of much better quality. What has been done can be done again. Nature has in her laboratory infinite stores of the same elements which have produced our finest fruits, and we have only to knock at her portals and pronounce the SESAME, when she will open to us the secrets of her wonder-working power."

There is no fruit, excepting, perhaps, the Strawberry, that yields so great, so quick and so certain a return for the attention necessary for its production as the Grape, and no one in possession of land enough for a single vine to grow upon should be without one, and he who has space cannot use it in a way to give more profit and pleasure than to put out a selection of the best sorts. We have numerous instances of single vines producing over fifty pounds of fruit the fourth year from planting. Now, fifty pounds, at ten cents per pound, would be five dollars to the vine. An acre planted at eight feet apart each way holds 680 vines, which, at the above estimate, would amount to \$3,400; but we admit this is a high estimate, and we will figure from a lower plane. .Take the Concord, which has been and is still more largely planted than any other variety; though not ranking high in quality, nor commanding a high price in the market, yet vineyards of this variety, during the low prices that prevailed through the season of 1885, yielded \$450 per acre. The crop of Grapes produced in Chautauqua Co., N. Y., same year, amounted to 3,500 tons, and sold for \$210,000 (three cents per pound). Yet this county is on the extreme western limit of the state, and the fruit had to be sent hundreds of miles to market. Circulars sent out and reports received from nineteen growers of the Niagara made the average price reported 144 cents per pound, and an average yield of 5¾ tons per acre.

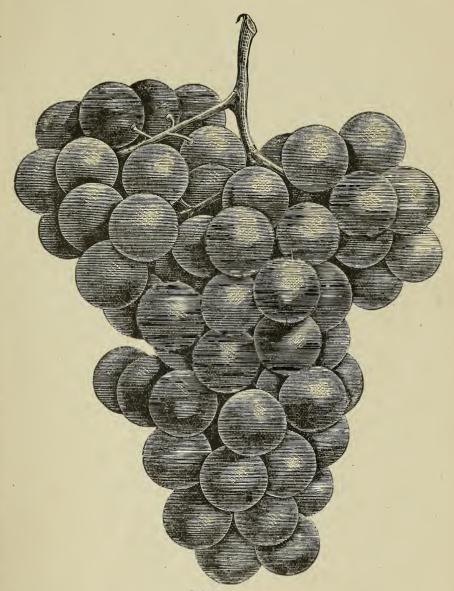
What crop will pay better? We have in Virginia a soil and climate eminently suited to grape-growing, and it is fast becoming an important branch of industry in some portions of the state; but these advantages seem more quickly recognized and utilized by those coming from other states and countries and locating amongst us than by our people, who seem, not only in this but in many other cases, to overlook the munificent gifts that the Great Creator has placed within their reach.

The cultivation of the vine is simple and easily understood. The most important considerations are—first, fixing upon the right soil and situation; and, secondly, selecting good vines of the proper varieties; and while there are many varieties that the amateur should plant, yet we advise the large planter to confine himself mainly to the few sorts that are known to succeed well. Our vines are grown out of doors, from well-selected cuttings and layers. We do not propose to grow cheap stock, but the best, which in reality is the cheapest to the planter.

The following list contains the best known sorts of hardy American varieties:

Agawam. (Rogers' No. 15.) Bunch large and compact; berries large, dark red; flesh tender, juicy and rich; one of the best of Rogers' Hybrids.

Barry. (Rogers' No. 43.) Bunch short, broad and compact; berry large, eval, black; flavor sweet, delicate; vine vigorous and productive; ripens with Concord.

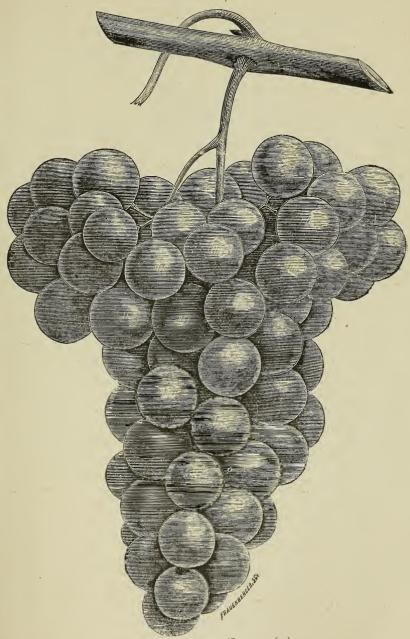


Brighton Grape

**Brighton.** A cross between the Concord and Diana Hamburg. Bunch large and beautifully formed; berries above medium to large size; usually of a red or Catawba color when first ripe, changing to reddish purple if allowed to hang long on the vine, covered with a blue bloom; skin thin; flesh tender, very sweet and of a fine and excellent flavor; quality best as compared with the finest native grapes. The fruit keeps well for an early grape, either on or off the vine; vine productive and vigorous.

**Champion**, or **Talman**. Vine a strong, vigorous grower, healthy, hardy, and productive; bunch large; berries large, black; quality poor, but profitable as a market grape because of its extreme earliness.

- Concord. There is no grape in the catalogue so popular or planted so extensively as this. It succeeds well in almost all parts of the country, and although of Northern origin, is better here than in its native place. It received the \$100 premium offered for the grape of the greatest value. Vine a very vigorous grower and enormously productive, comparatively free from disease; bunches large, compact; berries large, round, black, with a blue bloom; a profitable market sort.
- Colerain. Origin Ohio. A new white grape, seedling of Concord; color light green; bunch and berry medium size; the quality is very good; remarkably sweet and juicy; very few seeds; ripens early (just before Moore's Early); hangs well on the vine, often till frost.
- Catawba. So well and favorably known as to need but little notice here. One of our best grapes, succeeding well in the Valley and Piedmont regions of Virginia; bunch and berry large, dark red when ripe; flesh very juicy and rich; productive and valuable. September.
- Creveling. A black grape of medium size, nearly as early as Hartford; bunch loose, straggling; not very desirable.
- Clinton. A black grape of medium size, entirely healthy and hardy; a strong, rank grower, requiring thin soil and plenty of room; on strong, rich soil should be allowed to run, and pruned long; often succeeds where most other kinds fail; colors early, but should hang long on the vine. A good table grape when fully ripe.
- **Delaware.** This grape is now so well known as to need no commendation. Its earliness, hardiness and admirable sweetness have become too well known to the public to demand more said in its behalf; bunches medium size, compact; berries rather small; skin of a beautiful light red color; it is without hardness or acidity in its pulp; exceedingly sweet, sprightly, vinous and aromatic. Ripens in August.
- Diana. Bunch of medium size, compact; berries medium size, reddish lilac, covered with bloom; very juicy and sweet. Last of August.
- **Duchess.** A new seedling from Ulster Co., N. Y: Bunch medium to large, shouldered, compact; berries medium, round, greenish white; skin thin; flesh tender, without pulp; sprightly and rich.
- Early Ohio. Claimed to be the earliest black grape known; ten days earlier than Moore's Early. Bunch large, compact and shouldered; berry medium, covered with bloom; hardy as the Concord; strong grower and very productive; quality good; first-class for market.
- Eaton. Origin Massachusetts. A seedling of the Concord; stronger grower; large, black; the bunch and berry strongly resembles Moore's Early, the skin rather thick and covered with heavy bloom; very juicy, with some pulp, though tender; has less native odor than the Concord; large and attractive. Early.
- Empire State. Another new white grape of great promise; bunch large-shouldered; berry medium; skin slightly tinged with yellow; flesh tender, rich, juicy, sweet and sprightly; ripens a little after Hartford; vine a good grower and productive.
- **Flowers.** A native of North Carolina, belonging to the Scuppernong class; does not succeed well north of the 37th degree of latitude; berry very large, black, sweet; ripens in October, and hangs a long time; very productive; valuable on account of its lateness.
- Goethe. (Rogers' No. 1.) Bush and berry large; skin thin, yellowish green, tinged with red; flesh tender, melting, sweet and delicious; strong grower and very productive; deservedly becoming popular. First of September.
- **Green Mountain,** or **Winchell.** Well tested; the berry is medium size; color greenish white, with delicate white bloom; flesh juicy and sweet; remarkably free from mildew, and will do well in any soil where the Concord grows; a valuable early variety.
- Hays. A large, white, early grape; vine a strong grower and very productive; amber-yellow; skin very firm; flesh tender, juicy, of a delicate texture and fine flavor; ripens a week before Concord; excellent for home use.
- Hartford. (Hartford Prolific.) A very popular and profitable early grape; a vigorous grower and a good bearer, free from disease; fruit medium size, black; flesh sweet and soft. Early in August.
- **Herbemont.** Bunch very large; berries below medium size, round, of a dark blue or violet color; skin thin, which is filled with rich, vinous, aromatic juice. Medium season.
- **Herbert.** (*Rogers' No. 44.*) Black; bunch long, berry large, handsome and of high quality; a superb grape, ripening in mid-season.
- Isabella. An old, well-known sort; large size; dark purple; sweet and rich, with a slight musky aroma. Beginning of September.
- Ives. Bunch medium to large, sometimes shouldered, compact; berries medium black; flesh sweet, pulpy and somewhat foxy; should hang some time on the vine after it colors; hardy, vigorous and bears well; deservedly becoming popular. Early.
- Iona. A valuable red grape north of Pennsylvania; a little earlier than the Catawba; bunch medium, shouldered; flesh soft, tender, of first quality; keeps till mid-winter.
- **Jefferson.** This is a magnificent grape, but further trial must establish its worth. It is said to mildew badly in some localities; bunch large; very red. Late.



Niagara Grape. (See page 63.)



Pocklington Grape. (See page 63.)

- Lady. Originated in Ohio. Said to be a seedling of Concord. Bunch medium size, berry about the size of Concord; light greenish yellow, covered with white bloom; flesh tender, sweet and pleasant. Early.
- Lady Washington. One of Rickett's celebrated seedlings. Bunch very large, compact, generally double-shouldered; berry medium to large; color deep yellow, with a tinge of delicate pink where exposed to the sun, and covered with a thin white bloom; flesh soft, tender, juicy, sweet and very good; it ripens about with Concord. This showy and beautiful grape is a cross between the Concord and Allen's Hybrid, and is a promising grape for the market and the amateur.
- **Lindley.** (Rogers' No. 9.) Bunch large and compact; red, tender, sweet; ripens with Delaware. Hardy and productive.
- Martha. This is one of the most reliable white grapes yet known; bunch medium, compact, shouldered; berry white or greenish, turning to pale yellow when fully ripe; skin thin; flesh very sweet and juicy; a seedling of the Concord, and will take the same rank amongst white grapes that its parent does amongst the black; ripens a little earlier than Concord.
- **Merrimack.** (*Rogers' No. 19.*) Very vigorous and productive; bunch and berry large; black, sweet and rich; ripens before Concord.
- Moore's Early. A seedling of the Concord, combining the vigor, health, and productiveness of its parent, and ripening a few days earlier than the Hartford; bunch medium; berry quite large; color black, with a heavy blue bloom. Its extreme hardiness and size will render it a popular market sort.
- Moore's Diamond. Origin New York. Said to be a cross between Concord and Iona. This handsome new white grape has met with general favor; its extreme early ripening alone would make it valuable, coming in two or three weeks ahead of Concord; the bunch is medium size, slightly shouldered; color greenish white, with a yellow tinge when fully ripe; flesh juicy and almost without pulp; very few seeds.
- Moyer. From Canada, and very hardy. This new grape is very similar to the celebrated Delaware, the bunch and berry are almost identical, possibly a trifle larger and of somewhat darker color, but ripens much earlier (just after the Champion); the flavor is equal to Delaware, yet it is a much stronger grower, and almost free from mildew and rot.
- Mills. Origin Ontario. Large berry and bunch; black, covered with bloom; flesh firm, juicy, rich; skin thick; long keeper; ripens with Concord.
  - Norton's Virginia. Bunch large, shouldered; berries small, round; skin thin, dark purple, nearly black; flesh purple, with a brisk, rather rough flavor; vine vigorous, productive, and free from disease. Last of August.
  - Niagara. No grape has been so strongly presented for public favor as this, and for awhile it seemed as though it would merit all the praise bestowed upon it. The vine is remarkably vigorous and productive; bunch large, generally shouldered; berry large, roundish; color greenish white, turning to light yellow; skin thin, but tough; flesh slightly pulpy, tender and sweet; has a decided foxy flavor before fully ripe, which it pretty well loses at maturity. Ripens with Concord. In some vineyards it has suffered greatly from rot, and we are afraid this is a weakness that will be developed with age, but where it succeeds it will unquestionably be a very valuable sort.
  - **Pocklington.** A seedling of the Concord; vine very hardy, healthy and productive; bunch large, generally shouldered; berry light golden yellow when fully ripe; quality good; ripens rather early. It is a good keeper and bears shipping well. It will probably take its place as a valuable standard grape, being the largest and most showy white grape of its type yet introduced.
  - **Prentiss.** A moderate grower; bunch medium size, compact; berry medium; color yellowish green; flesh tender, juicy, sweet and pleasant, with a slight musky aroma; ripens with or a little later than Concord.
  - **Perkins.** Vine vigorous and productive; bunch medium; berry large, pink, very foxy.
  - Rebecca. A white grape of merit; bunches of medium size; compact; berries medium size; of a pale green color, turning to golden amber in the sun; tender, juicy and luscious. Last of August.
  - Scuppernong. A Southern grape, too tender for a more northern latitude than Virginia; does not succeed even in Virginia much above the tide-water line, but southward it is quite hardy and valuable; vine a vigorous grower; requires no pruning; bunch small, loose, not often containing more than six berries; fruit large, round; skin thick, light green; flesh pulpy, juicy, sweet; produces enormous crops; continues in season about six weeks.
  - Salem. (Rogers' No. 22.) Bunch and berry large; of a light chestnut color; skin thin; flesh tender, very sweet and sprightly, with a rich, aromatic flavor; vine vigorous and productive; ripens before Concord. One of the best and most popular of Rogers' Hybrids.
  - **Telegraph.** (*Christine*.) Black; bunch and berry medium to large; quality better than Hartford, and nearly as early; vine vigorous; free from mildew and productive.



Worden Grape. (See page 65.)

- **Triumph**. A new, white grape; size very large in bunch and berry, which is of very fine quality; requires a long season to ripen; is therefore best suited to the southern latitude, where it is giving very good satisfaction.
- **Thomas.** Originated in South Carolina; will not succeed north of the <sup>3</sup>7th parallel. Fruit rather smaller than the Scuppernongs, to which class it belongs; skin black; flesh tender, sweet; ripens with the Scuppernong.
- **Tender Pulp.** A new variety, which, as its name implies, has a pulp so tender that it melts upon the tongue like a delicious pear; not quite so sweet as the Scuppernong, to which class it belongs, but its peculiar softness and fine flavor recommend it. It ripens just before the Scuppernong; will not succeed north of the 37th parallel.
- Vergennes. A chance seedling from Vermont. Skin light red, rather thick; flesh tender, juicy, well-flavored; very good quality. Ripens with Concord.
- Wilder. (Rogers' No. 4.) Bunch and berry large; black; pulp tender, juicy, rich and sweet; vigorous and productive. Ripens with Concord.
- Worden. Said to be a seedling of the Concord, and is a slight improvement on that variety; ripens a few days earlier; bunch large and compact; berry large, black and of good quality; vine vigorous and productive. Will become very popular for the vineyard and garden.
- **Wyoming Red.** Ripens with Delaware; somewhat similar, though larger in bunch and berry; light red; early; vine strong grower and hardy.

### ADDITIONAL VARIETIES.

Allen's Hybrid, Alvey, Bacchus, Croton, Cottage, Cynthiana, Centennial, Cleveland, Eumelan, Early Dawn,

Early Victor, Eldorado, Elsinburg, Elvira, Eva, Israella, Jessica. Mary, Massasoit, Maxatawney, Noah, Naomi, Rogers' No. 8, Senasqua, Sherman, Taylor, Union Village, Uhland, Venango, Walter.

## GOOSEBERRIES.

Until quite recently no interest has been felt in the cultivation of this fruit, further than to grow a meager supply for home consumption, yet there are few crops that will yield as satisfactory returns; certainly none more certain with so little expense in cultivation. We have been growing them for the Northern market, and the result has been very satisfactory.

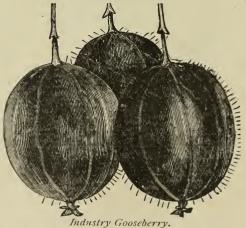
**Downing.** A seedling of the Houghton. An upright, vigorous-growing plant; fruit larger than its parent; color whitish green; flesh rather soft, juicy, very good; productive; valuable market sort.

Houghton's Seedling. Rather small; pale red; flesh tender, juicy, sweet and pleasant; produces enormous crops; free from mildew; most profitable market variety.

Industry. English origin; the best foreign gooseberry yet introduced; very large, dark red, excellent quality, beautiful, and an enormous bearer.

Smith's Seedling. A new variety grown from seed of the Houghton; more vigorous and upright in growth of plant than its parent; the fruit is larger and somewhat oval in form; light green; flesh moderately firm, sweet and good.

We also cultivate some of the best English sorts, but they are so liable to mildew as to make them unprofitable; therefore we cannot recommend them for general planting.





Cherry Currant.

# SELECT CURRANTS.

Black English. A well tested and reliable black currant; valuable for jellies, etc.
 Bang-Up. A new black currant, very hardy; bears early and abundantly; one of the best.
 Black Naples. Very large; black; valuable for jams and jellies; has a strong musky odor.

**Cherry.** Very large; red; strong grower and moderately productive; fine for preserving and a valuable market variety.

Crandall. A native kind of first quality; free from the odor of the European black varieties; fruit large and fine; strong grower; abundant bearer; free from insects.

Fay's Prolific. This currant has now been before the public a number of years, and we believe has pretty well sustained the claims of its disseminator, who says of it: "Color rich red; as compared with the Cherry currant, Fay's prolific is equal in size, better in flavor, containing less acid, and five times as prolific, and from its long, peculiar stem, less expensive to pick."

Lee's Prolific. A black variety of recent introduction, and perhaps the best of its class. Earlier than Black Naples, with the peculiar musky flavor of that variety; fruit large; very prolific.

La Versaillaise. One of the largest and best currants; an enormous bearer; red; flavor good; very similar to Cherry.

**Prince Albert.** A moderately vigorous grower; large foliage; fruit large, bright red; late.

Red Dutch. Larger than the common red, and clusters much larger and less acid; one of the best red currants.

Red Grape. Very large; bunch very long; beautiful red color; a little more acid than the Red Dutch; very productive.

Victoria. A late variety, of rather large size; red; bunch long; productive.

White Grape. The best white currant; bunch moderately long; berries large; very productive; less acid than the red currants; fine for the table.

White Dutch. Rather large; white; good.

# RASPBERRIES.

Brandywine. Hardy and very productive; fruit large size; light red; moderately juicy, flavor pleasant; one of the most valuable sorts.

Caroline. Fruit quite large; deep orange yellow or salmon color, with a slight bloom; flesh soft, juicy, sweet, rich, and of very good quality.

Clarke. Large; bright crimson; flesh rather soft, juicy, sweet and excellent; canes strong, vigorous and upright in growth.

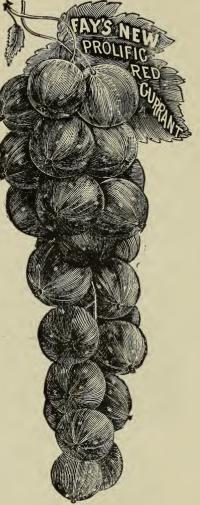
Cuthbert. (Queen of the Market.) Canes strong, upright, very vigorous, sometimes branching; foliage luxuriant; fruit large to very large; red; moderately firm, with high, sprightly flavor; very productive. Its many valuable qualities render it desirable for home or market culture. It succeeds well generally, and is almost the only one that can be relied on in the Cotton states. We commend it to planters in all sections.

**Doolittle's Improved.** (Cap.) An old, popular, early sort, but not planted so largely as formerly.

Earhart. (Everbearing Black Cap.) The best everbearer yet introduced, and as a novelty a sure success; while it bears a good crop at the regular time for fruiting with other black caps, yet it can not be recommended as valuable for market.

**Florence** (Cap). Yellow; of good quality; hardy and productive.

**Gregg.** This is one of the largest, if not *the* largest, of the black cap family; fruit large, black, with a slight bloom; flesh quite firm, moderately juicy, sweet and rich; the fruit ripens late and very evenly, making the picking season short; it is a very strong grower and good bearer. Very desirable.





Cuthbert Raspberry.



Gregg Raspberry. (See page 67.)



Marlboro Raspberry.

Golden Queen. A seedling or "sport" of the Cuthbert, and in hardiness and vigorous growth of plant resembles that variety; fruit of large size; color beautiful yellow; flavor excellent.

**Hansell.** Fruit medium size, bright crimson, very firm and of good quality; ripens a week earlier than Brandywine; a moderate grower; productive.

**Hudson River Antwerp.** A popular sort on the Hudson river, but does not succeed farther south.

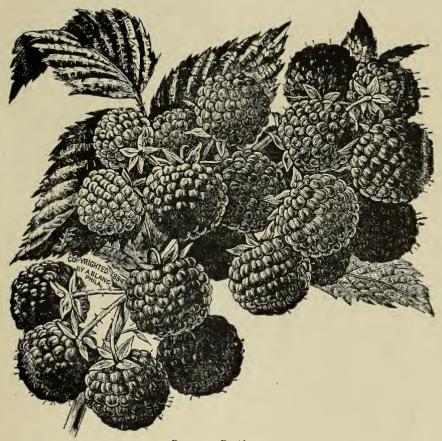
Herstine. A large, beautiful and delicious berry, but it does not stand our hot sunshine sufficiently well to allow us to recommend it.

Mammoth Cluster. (McCormick; Cap). Of much larger size than the common black cap, also sweeter and more juicy; a strong grower and productive. Medium to late.

Marlboro. Strong and vigorous grower; very productive; fruit of uniformly large size and good quality; carries well; commences ripening early, and continues for six weeks or longer; a very promising sort.

Palmer. Very similar to the old reliable black cap, Souhegan; the only difference may be that the fruit averages a little larger; some claim it to be a stronger grower and better producer; however, it is a number one raspberry.

Philadelphia. This once popular sort has been superseded by its offspring, Reliance.



Rancocas Raspberry.

- Rancocas. This new sort is rapidly working its way to the front by its own merits, and it will stay there, combining, as it does, so many good points. The plant is vigorous, and the introducer says: "With same soil and with same care will produce twice as many quarts to the acre as the Brandywine." Fruit large, beautiful color, good quality; ripens its crop in a very short time, and is a good shipper. It will prove a most valuable sort for marketing.
- Reliance. Resembles the Philadelphia, from which it has descended, but by its more valuable qualities has superseded that once very popular sort; fruit large size; dark red or crimson; flesh firm, juicy, sweet and sprightly; it is hardy, healthy and vigorous; very productive; one of the largest of its class.
- **Souhegan.** (Cap.) A week or ten days earlier than Doolittle; strong grower; very hardy; fruit large, jet black, handsome; one of the very best of the caps.
- **Superb.** A delicious berry of very large size and high quality; commences ripening early, and continues a long time in bearing; requires high culture; not a profitable market berry.
- **Shaffer's Colossal.** Perhaps the largest raspberry, both in cane and fruit, yet produced; exceedingly productive; fruit has purplish red color and rich flavor, yet somewhat acid; unrivalled for the table and canning; being a cross between the red and black cap, its color hurts its sale as a market berry.
- **Turner.** (Southern Thornless.) A strong grower, healthy and hardy; very productive; berries of medium size, bright crimson; flesh rather soft, sweet and rich; desirable for home use; succeeds over a great extent of country.



Souhegan Raspberry. (See page 71.)

#### ADDITIONAL VARIETIES.

Brinckle's Orange, Crimson Beauty, Delaware, Lost Rubies, Niagara, Ohio, or Alden, Red Antwerp, Saunders, Thwack, Yellow Antwerp.

## WINEBERRY.

Of Japanese origin. A novelty that has created quite a sensation in the horticultural world, and proved itself to be a valuable acquisition; the plant is quite distinct; it belongs to the raspberry family, and is large, robust and perfectly hardy. The berries are half transparent and beautiful, ranging in color from an amber to crimson as they ripen; in general appearance they resemble the raspberry; the quality is distinct, rich, sprightly, with a sharp subacid; elegant for cooking, canning or jelly, far surpassing the huckleberry, raspberry and many other small fruits; it begins to ripen in July, and continues a long time. It is also a handsome ornamental shrub, and its freedom from insect pests and rust makes it valuable indeed.

# JUNEBERRY.

This valuable acquisition to the list of "new fruits" has been received with general approval; in appearance and quality it strongly resembles the swamp huckleberry; the fruit is reddish purple in color, changing to bluish black, and is borne in clusters; the flavor is rich subacid; excellent for dessert or canned; the plant attains about the same size as the currant; extremely hardy, both to cold and heat; very easy to cultivate; seems to grow and do well with very little care.



Lucretia Blackberry.

# SELECT BLACKBERRIES.

Crystal White. The fruit is medium size; white, half transparent, sweet and fairly good in quality; more of a novelty as a "white blackberry;" plant close to some other kinds, as the blossoms are pistillate.

Dorchester. Nearly equal in size to Lawton, somewhat sweeter, and producing large crops of high-flavored fruit; a vigorous grower; fruit large, of a deep, shining black. The berries should be fully matured before they are gathered.

Erie. One of the very best large new berries; absolutely hardy; coal black; firm and

solid; ripens early.

Early Cluster. A new berry of promise, ripening just after Early Harvest; berries medium

size, good quality; productive.

Early Harvest. One of the earliest, if not the *very* earliest blackberry yet introduced, ripening two weeks before Wilson's Early; berry medium size, good quality, and very prolific; it is firm and very attractive in appearance; a good market sort. **Lucretia.** This is a trailing blackberry or dewberry; a good grower and productive; fruit

large and of good flavor.

Lawton. (New Rochelle.) An "old reliable;" large and of best quality; turns black a

considerable time before ripening. Late.

Minnewaski. Origin New York; very popular at its home on the Hudson river; has not been thoroughly tried yet; it promises to be an early, valuable kind for market; very hardy and productive.



Wilson's Early Blackberry.

Snyder. The hardiest blackberry known; thoroughly tested in the extreme Northwest, never known to winter kill; fruit medium size and of good quality.

Taylor's Prolific. Large; coal black; very hardy. Late.

Wilson's Early. A well known and most valuable sort; it is of very large size, and very productive, ripening its fruit quite early, and maturing the whole crop in a short time, adding thereby greatly to its value as a berry for early marketing. There has been more fruit grown of this variety during the last twenty years than all other sorts combined.

Wilson, Jr. A seedling of Wilson's Early, said to inherit all the good qualities of its parent, besides being larger and earlier. Probably the best early blackberry yet introduced.

Wachusett. (Wachusett Thornless.) Canes with few thorns; fruit of medium size and of good quality. Needs good, strong soil and good cultivation.

#### ADDITIONAL VARIETIES.

Agawam, Brunton's Early, Crystal White, McCracken, Missouri Mammoth, Stayman's Early, Wallace, Western Triumph.

# SELECT STRAWBERRIES.

The Strawberry at present occupies a very prominent place in the catalogue of fruits



and nowhere is there greater reason for a people to be interested in its culture than in the Middle States. It is at home in our soil. and ripens its fruit so early as to give us an opportunity of getting the principal part of our crop into New York and other markets before the more northern grower has a basket of berries to send in. Thus we have the very cream of the market: and that we can send berries to this or even Boston market by rail or water, and that they can reach their destination in good condition, has been shown to our entire satisfaction.

We grew in Richmond one year (1868) one acre, from which we Wrong way o gathered 3,200 quarts of fruit, two-thirds of which we sent to New planting. York; the balance we sold in this market. The gross sales of this acre amounted to

\$921.72; the cost of shipping and selling the same was \$171.55. We do not mention this as an extraordinary yield, nor an unusual price, but just to show what has actually been done under ordinary circumstances.

We believe that 150 bushels may be obtained from an acre. and that 100 bushels may be safely put down as an average for every acre where the land is in good condition and the cultivation is thorough. The demand for berries is almost without limit. We cannot expect the prices to rule so high as they did some years ago, but with judicious management it will pay.

In garden culture set the plants in rows eighteen inches



apart and twelve inches apart in the rows, leaving a narrow walk between every three rows, from which the fruit

can be gathered without treading on the bed. In field culture let the rows be three feet apart and the plants twelve inches apart in the rows. An acre thus set will require 14,520 plants. The ground should be kept free from weeds and grass and the

runners cut off as they make their appearance. Thorough preparation of the soil is advised before setting; then

Planted too shallow.

shallow cultivation afterwards, so as not to disturb the roots. In the spring the ground should be mulched around the plants, so as to keep the fruit clean. By this course a bed may be kept in good bearing condition for many years.



Pistillate.

We have given especial attention to the selection of varieties, both for the amateur and market grower, and believe that our

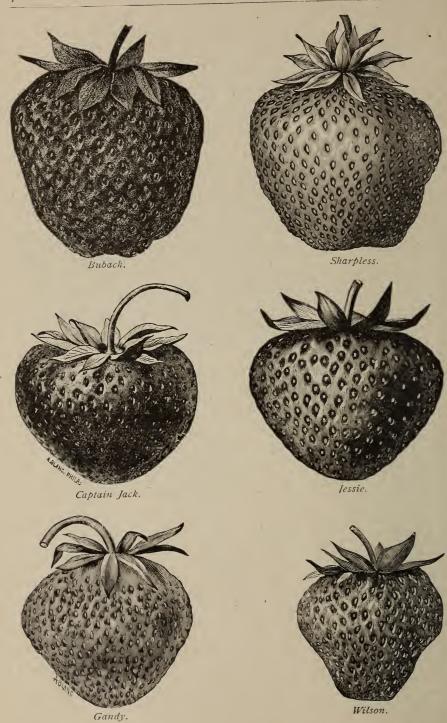
Planted too deep. collection embraces the very best sorts. Our plants are of the best quality, and will be furnished at very reasonable rates to those wanting them in large quantities. We will here put in a word of caution against the flaming advertisements of new varieties that are so often heralded

before the public. That there is room for improvement, we admit; but the most of these

new sorts, so highly puffed, and offered at enormous prices, are destined, like the most of their predecessors, to shine but for a short time and then sink into obscurity; perhaps, as the case has often been, to come out at some future day under a new title, to shine again for a short season. It is well enough to try those that seem to merit it, but touch them lightly until they have proved themselves good. Hold on to the standard sorts until something is found better by actual experience.



Perfect Flower.



- Bubach No. 5. (P.) This is decidedly, all things considered, the best large strawberry. Unfortunately it does not stand shipping, but for near by market and home use it has paid enormously (over \$500 per acre). It does well on all kinds of soil; being an imperfect flower, it only reaches perfection when fertilized with some good stamen kind, as Jessie. Like all strawberries, it requires a liberal amount of manure; the plant is a strong grower, with only a limited number of runners; dark green foliage, and does not blight or rust; enormously productive; the fruit is large, light red, handsome and delicious. Early.
- Captain Jack. Medium; deep red; second quality, but very prolific and profitable in some soils.
- **Charles Downing.** A well known sort, and, like the Wilson, adapted to a great variety of soils: fruit large, bright scarlet; flesh juicy, sweet, and rich; a valuable sort. Season medium.
- Crescent Seedling. (P.) Fruit medium to large; roundish, conical, bright scarlet. It requires less time and attention than most varieties, and is well calculated for those who cannot and will not give the necessary labor to produce the better kinds. It is a hardy, strong, vigorous grower, and very productive; the plant requires much room to give good results; it ripens early and continues late, holding its size tolerably well; and although not of high flavor, its fair size, good color, and moderately firm flesh has given it a near market value. Being a pistillate variety, it should be planted near other varieties.
- **Crystal City.** (P.) Medium size, conical; color light crimson; flesh soft; quality good when very ripe; valuable on account of its early ripening.
- **Cumberland.** (*Cumberland Triumph.*) Very large, regular and uniform in size; light scarlet; very handsome; flesh juicy and good flavor; plant very vigorous and productive. It succeeds well almost everywhere. All things considered, this is one of the most valuable sorts, and deserves very extensive planting. Season medium.
- Glendale. Fruit medium to large; regular in form; color light scarlet; very productive; succeeds best on heavy soils. Late.
- Gandy. A new, very late kind; the fruit is uniformly large, bright red, firm and of first quality; very valuable as a shipper; requires high cultivation to bring it to perfection; is valuable as a fertilizer to use with other kinds, making the latter more faithful; the best late variety.
- **Haverland.** (P.) Origin Ohio. Seedling of Crescent fertilized with Sharpless; one of the heaviest bearers, though a pistillate; the plants are strong and healthy; it does best on light, fertile soils, making too heavy foliage on clay; the fruit is large, long, conical, even in form; light color; very desirable.
- **Hoffman.** This new berry has made lots of money for the Southern fruit grower; it does its best south of Maryland; the fruit is medium size, very firm and of good quality; the plant is a strong grower and very productive.
- James Vick. Very productive if not allowed to grow too thick in row; fruit of regular form, medium size, and attractive color. Season medium.
- Jewell. Originated in Connecticut in 1880, and is supposed to be a seedling of Jersey Queen, and has been introduced as "the most productive large strawberry ever produced," and "of better color, more uniform and solid, of better quality, more vigorous and more productive than Sharpless, it will not fail to become a great favorite." That eminent pomologist, Marshall P. Wilder, says of it: "The large size, good form, bright color and remarkable solidity and productiveness will make it a permanent variety. The Jewell promises to be a jewel of the vegetable kingdom." Awarded a silver medal by the Massachusetts Horticultural Society. Season medium.
- **Jucunda.** Extra large; bright red; flesh solid, white, juicy, and of delicate flavor; a very good and showy berry, but, unfortunately, it succeeds in a few places only; does best in heavy soils, and must have high cultivation.
- **Kentucky.** A native of Kentucky; very large; bright scarlet; sweet and delicious; ripens about a week later than most varieties; fruit firm; a fine market sort; plant hardy and very productive; valuable for the late market.
- **Lennig's White.** One of the very finest-flavored sorts grown, but, unfortunately, it does not bear enough to make it profitable; fruit large; color whitish, tinged with red; flesh white, tender, juicy, sweet, rich, delicious, pineapple flavor.
- **Manchester.** (P.) Fruit large size, bright color, and of good flavor; plants hardy, vigorous and productive; medium to late.
- Miner's Prolific. Fruit medium to large; flesh light red; moderately firm, juicy, subacid, and of fair quality, ripens medium to late.
- **Monarch.** (Monarch of the West.) A variety esteemed by some for the table; very large; light color; flesh soft, high flavored; plants strong, vigorous and productive. Season medium.
- Michel's Early. Origin Arkansas. Six to ten days earlier than Crescent; a perfect flower and a good fertilizer for other sorts; the berry is large and firm, and of the finest flavor; one of the very best for early market; especially adapted to the South; the plant is a strong, hardy grower, and free from rust or blight.



Haverland Strawberries.

Meek's Early. Origin Maryland. Perfect flower, fruit light colored; very prolific; valuable on account of its extreme earliness.

May King. A seedling of the Crescent, and regarded as a very promising sort for the market; vigorous, very productive; fruit large, bright red; handsome. Early.

Old Ironclad. One of the very earliest sorts; plant vigorous and productive; berries large and of uniform size and form, and of good appearance; a good market sort.

Parry. A seedling of Jersey Queen; plant is vigorous; berries uniformly large; bright scarlet; handsome and good. This is one of the most promising of the new sorts. Early to medium.

Seth Boyden. (Boyden's No. 30.) Very large; bright crimson; flesh moderately firm, melting, sweet and of pleasant flavor; plant hardy, vigorous and productive; continues a long time in bearing. This variety is deservedly growing in favor.

Sharpless. This large, showy strawberry originated with J. K. Sharpless, Catawissa, Pa. Fruit large to very large; bright scarlet, somewhat glossy; flesh light red, quite firm moderately juicy, sweet, rich and of very good flavor; medium to late in ripening; a most excellent sort for family use, and also a very profitable one for market. No variety amongst the many new ones introduced during the past fifteen years has sustained its good name so well as this.

Wilson. (Wilson's Albany.) This variety has stood the test for over thirty years, and worked its way upon its own merits to the top of the list of profitable market sorts. For shipping long distances, and although more than one hundred sorts have been brought
out during this time that were to supersede it, we doubt if any one of them is to-day as valuable as the Wilson, when we consider its wonderful productive and good shipping qualities, as well as its value for general purposes. Early to medium.

#### ADDITIONAL VARIETIES.

Some of these are old and tried sorts of value; others, new varieties which promise well, and may, upon further trial, be found to rank as *best*. We will supply them at customary rates.

Alpha. Agriculturist. Big Bob, Bright Ida. Black Defiance, Barnes' Mammoth, Colonel Cheney, Columbus Wilson. Daniel Boone. Duncan, Dr. Warder,

Duchess Early Queen, Empress Eugenie. Fillmore. Finch's Prolific, Golden Defiance. Gipsy, Great American, Hovey's Seedling, Huddleston's Fav'te, Hauthois Prolific

Jersey Queen, Kerr's Favorite, Lacon. Longféllow. Maggie, Mrs. Garfield. Nicanor. Neunan, New Jersey Scarlet, President Wilder, Prince of Berries, Philo, Park Beauty. Prouty's Seedling, Piper's Seedling, Phelps' Seedling, Rivers' Eliza, Russell's Prolific. Star of the West, Triple Crown. Windsor Chief.

# FIGS.

The following are among the best and hardiest varieties:

Angelique, Black Ischia, Brown Turkey, Brunswick,

Early Violet, Pregussata,

White Genoa. White Marseilles

# ESCULENT ROOTS.

#### ASPARAGUS.

Conover's Colossal. A standard kind of first quality; tender and high flavored; onen ready to cut the second year after planting.

> Barr's Mammoth. Originated near Philadelphia. The largest of all, and with this great merit, it is very early and quite tender; delicious; light colored; the yield is simply enormous; decidedly the best asparagus for all purposes yet introduced. New.

> Palmetto, or French. Southern origin; new. Ten days earlier than other kinds; valuable for home or market; largest, tender; very regular growth; one of the best.

#### RHUBARB, OR PIE PLANT.

This very desirable vegetable comes early in the spring. The large stems of the

leaves are used for pie-making and stewing; it is also valuable for medicinal purposes; we keep the best varieties.

Linnæus.

Victoria.

# HEDGE PLANTS.

American Arbor-Vitæ, Hemlock Spruce, Norway Spruce. These three well known and

Conover's Colossal Asparagus. popular varieties make a beautiful evergreen hedge.

Osage Orange. Two years.

Osage Orange. One year. California Privet.

# CIONS AND BUDS OF FRUIT TREES

Cions and buds of any variety of Fruit Trees enumerated in this Catalogue can be furnished at the annexed prices, excepting only a few sorts.

When ordered to be sent by mail, the annexed price includes the payment of postage when fifty cents' worth or more are taken. APPLES AND PEACHES, per dozen buds . . \$0 121/2 cions. PEARS, PLUMS AND CHERRIES, per dozen buds 25

cions . . . . . . When the standard varieties are ordered by the hundred or thousand, they will be furnished at greatly reduced prices.





# Ornamental Department.

In issuing this new edition of our Descriptive Catalogue of Ornamental Trees, Evergreens, Flowering Shrubs, etc., we may say the increasing demand for this class of stock has induced us to make this branch a more prominent feature of our establishment, and to this end we have been steadily working for years, carefully selecting the best and most desirable sorts out of the great mass that has been brought to the notice of the public. That there should be many very good things, and also very poor ones, in these vast collections, is a fact beyond question. For the supply of the amateur, and those whose plantings are to embrace a large collection for variety's sake, it is very proper that they should be supplied; but our purpose is chiefly to furnish material to those who select for true merit, who want trees and plants that will do the most good and give the best satisfaction. It should be kept in mind that, with ornamentals, as with fruit trees, there are some that do well in one place that will fail in another, so that care should be taken, in making up planting-lists, to select such only as are known to succeed in the particular locality where they are to be planted. We want trees that will not only show well in the earlier stages of their growth, but those that will maintain a good form and pleasing habit as they grow older; in fact, we should look more to the character of the tree when developed than to its appearance when young. Our stock is in the best possible condition for transplanting, having plenty of room where growing, and in soil eminently suited to the development of a good system of roots. With careful planting, and proper care afterwards, there will be but little danger of failure.

# Transplanting and Cultivation.

The same advice concerning transplanting and cultivation, given in our Fruit Catalogue, applies to this department; but as it is often impossible to cultivate the ground in which shade trees are planted, it will be the more necessary to mulch them well, and not let the grass grow close around the stem of the tree.

Flowering shrubs and evergreens should be carefully planted in good, deep, rich soil. and well mulched. When this is done, watering will seldom be necessary; but when, in case of extreme drought, it may be required, it should be thoroughly done, so as to reach well down to the roots. Very much watering before the leaves expand is a decided injury. let there be just enough to keep the earth moist about the roots, not soaking wet, or it may cause them to decay

The branches should always be shortened back, at the time of planting, in proportion to the loss of roots sustained by the tree in moving.

Those contemplating planting trees should bear in mind that the value and beauty of a tree or plant is dependent upon its thriftiness and symmetry rather than its height.

#### DECIDUOUS TREES.

ABELE. See Poplar.

APPLE, Chinese Crab (Pyrus Malus—Spectabilis). We grow two sorts, one with semi-

double pale, almost white flowers, and the other with double,

rose-colored bloom.

Siberian Crab (P. malus prunifolia). There are many varieties in this class. The Transcendent and Yellow are among the best. The bloom is attractive, and the fruit is not only showy, but is valuable for preserving.

ASH, European (Fraxinus excelsior). A lofty tree, of rapid growth.

White American (F. Americana).
A native tree of large size, palegreen foliage; one of the best of the family.

ALDER, European (Alnus glutinosus). A rapid-growing tree, which attains a height of thirty to fifty feet: well adapted to moist situations.

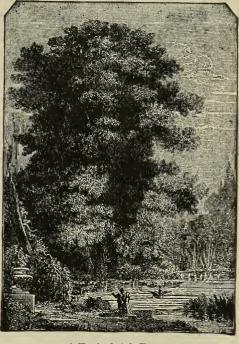
ACACIA. See Locust.

BEECH, American (Fagus ferruginea). One of the grandest trees of our forest, hardy and comparatively free from insect depredations; well deserving of more extensive planting.

Purple-Leaved (Fagus sylvatica purpurea). Foliage deep purple in the spring, but under our hot seven and in dry easeons it loses.

sun and in dry seasons it loses much of its color; for the Northern States it is a very desirable tree.

European Beech (Fagus sylvatica). A beautiful tree, attaining a height of sixty feet or more.



A Typical Ash Tree.

BIRCH, European White Birch (Betula alba). A medium-sized tree, quite erect when young, but after a few years the branches assume an elegant, drooping habit, which renders the tree very effective on the landscape.

**BIRD-CHERRY**, **European** (*Prunus padus*). Tree of small size, bearing a profusion of highly fragrant white flowers.

BOX-ELDER, Ash-Leaved Maple (Negundo fraxinifolium). A rapid growing native tree, with light green twigs and pinnate leaves; easily cultivated.

CATALPA, bignonioides. A native of the Southern States; a rapid-growing tree, with large, heart-shaped leaves and large spikes of white and purple flowers.

speciosa. Originated in the West; said to be finer than the above, and blooms two or three weeks earlier.

CYPRESS, Deciduous or Southern (Taxodium distichum). A beautiful, stately tree, with small, elegant, yew-like foliage.

CHINESE CORK TREE (Philodendron Amurense). Resembles the Ailantus; yerv hardy; thick, corky bark and elegant foliage; attains to thirty to forty feet in height; desirable. CHERRY (Cerasus). Large, double-flowering; produces a profusion of double white flowers in the early spring.

ELM, English (Ulmus campestris). A native of Europe; a noble, rapid-growing tree, forming a dense head; a desirable tree for streets, avenues, etc.

English Cork-Barked (Ulmus suberosa). Strong, upright grower; young branches

engish Cork-Barked (Ulmus suberosa). Strong, upright grower; young branches very corky; leaves rough on both sides.

American or White (U. Americana). A native tree of large size, with spreading head and graceful, drooping branches. Of all trees, no other, perhaps, unites in the same degree majesty and beauty, grace and grandeur, as this one does. It flourishes in all parts of the country, and deserves to be more generally planted.

Slippery Elm (U. fulva). A native species, with ovate-oblong, downy leaves, branches drooping or spreading.

drooping or spreading. Scotch or Wych (*U. montana*). A fine, spreading tree, of rapid growth and large foliage.

Purple-Leaved Elm (*U. campestris purpurea*). A striking variety, with erect branches and small purple leaves.

FRINGE-TREE, White Fringe (Chionanthus Virginica). A small native tree, with ash-like leaves and drooping racemes of pure white flowers, resembling an elegant

HAWTHORN, English Hawthorn (Crategus oxyacantha). The celebrated English

hedgeplant; not so valuable here for that purpose.

Double White (Flore pleno). Has small, double white flowers; quite ornamental in flower and foliage.

**Double Pink.** Rose-colored flowers, and produced in great abundance. **Double Red.** Bright, double-red flowers.

HORSE-CHESTNUT, Common White Flowering (Esculus hippocastanum). A handsomely-formed tree, with very attractive flowers; succeeds well in the Northern States and in the elevated portions of the Southern States; but in many places South its foliage burns under the hot sun.

Red-Flowered (A. rubicunda). A superb tree in both foliage and flowers; the foliage is darker green than the white, and the flowers showy red, coming later.

Very desirable.

Ohio Buckeye (Æ. glabra). A native of the Western States, forming a large-sized tree; flowers pale yellow.

HORNBEAM, American Hornbeam (Carpinus Americana). A native species, growing fifteen or twenty feet high; its habit of growth is similar to that of the beech, but foliage is thinner and more irregular in form.

European Hornbeam (C. betulus). A dense-growing species, with smooth, gray bark and birch-like foliage.

JUDAS-TREE, Red Bud (Cercis Canadensis). A very ornamental tree of small size, with heart-shaped leaves, and is covered with a profusion of delicate pink flowers before the foliage appears.

Japan Judas-Tree (C. Japonicum). Recently introduced from Japan. The flowers are larger than the above species, and of a light rose-color; it is entirely hardy and very beautiful.

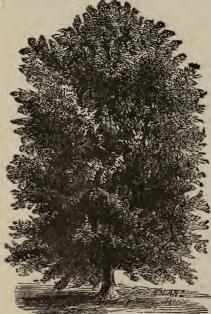
KENTUCKY COFFEE (Gymnocladus Canadensis). A large-growing tree, with rough bark, stiff, blunt shoots, and feathery foliage

KŒLREUTERIA (Kælréuteria paniculata). A small tree, valuable because of its yellow flowers and pretty foliage.

LARCH, European (Larix Europœus). A beautiful, rapid-growing pyramidal tree, with all the characteristics of an evergreen, except that it drops its foliage in the autumn; very desirable.

LABURNUM, Golden Chain (Cytisus Laburnum). A very ornamental small tree, a native of Europe, with smooth, shining foliage, bearing a profusion of drooping racemes of yellow flowers.

LINDEN, American Basswood (Tilia Americana). A large, native, rapid-growing tree, with large leaves and fragrant flowers; fine for street or lawn planting; is becoming very popular, and deservedly so, as it is a fine tree.



Linden.

LINDEN, European Linden (Tilia Europea). A fine pyramidal tree, more compact in its habit than the above, but does not attain

as large a size; a very popular tree.

White-Leaved European Linden (T. argentea). A vigorous-growing tree; its handsome form, growth, and foliage render it worthy to be classed amongst the best of our ornamental trees.

Broad-Leaved European Linden (T. platyphyllos). Distinguished from T. Europæa by its larger and rougher leaves.

LOCUST, Honey. Three-Thorned Acacia (Gleditschia triacanthos). A rapid-growing native tree, with delicate, doubly-pinnated leaves and formidable spines; sometimes used for hedging.

Yellow Locust (Robinia Pseudacacia). A native tree of large size, of rapid growth, native tree of large size, or rapid growin, possessing a soft and graceful foliage, with a refreshing tint of light green; flowers white or yellowish, very abundant and fragrant, and growing in long, pendulous and and racenies

Rose Acacia, or Moss Locust (Robinia hispida). A native tree or shrub, of spreading, irregular growth, producing long clusters of rose-colored flowers.

MAPLE, Silver-Leaved (Acer dasycarpum). A hardy, rapid-growing native tree, attaining a large size; valuable for producing a quick shade; fine for street and park-planting, for which purpose it is planted more largely than any other tree.

Japan Maples. Mostly, dwarf habit, several kinds weeping and cut-leaved, with brightly colored foliage, red, purple, etc.; these are indeed remarkable for beauty, and where

ever planted give perfect satisfaction.

Norway Maple (A. platanoides). Or

ever planted give perfect satisfaction.

Norway Maple (A. platanoides). One of the most beautiful and desirable trees known; foliage broad, deep green, shining; its compact habit and stout and vigorous growth render it one of the most valuable trees for street or lawn-planting.

Sugar Maple (A. saccharinum). A well-known native tree, of stately growth, fine form and oliage; very desirable as an ornamental and shade tree.

Sycamore Maple (A. Pseudo-platanus). An European species, of moderate size; leaves large, dark green.

Schwedler's Maple. This beautiful maple of recent introduction is attracting considerable attention; it is of the Norma family, and of about the same habit of growth; its handsome purplish crimson leaves in May and June, changing to a bronze as they mature, are much admired.

they mature, are much admired.

Red or Scarlet Maple (A. rubrum). A native species, of moderate size, producing deep-red blossoms, and in autumn the foliage changes to a brilliant scarlet.

English or Cork-Barked Maple (A. campestre). A slow-growing tree, or compact, roundish habit, with corky bark.

Cut-Leaved Maple (A. dissectum). A tree of small size, round-headed, compact; foliage lorge deeply cut.

foliage large, deeply cut.

MAGNOLIA, Cucumber-Tree (M. acuminata). A beautiful pyramidal tree, attaining a height of seventy or eighty feet; growth very rapid and upright; flowers greenish yellow.

Great-Leaved Magnolia (M. macrophylla). A tree of medium size, leaves from two

 Great-Leaved Magnolia (M. macrophylla). A tree of medium size, leaves from two to three feet long; flowers eight to ten inches in diameter; pure white, very fragrant.
 Umbrella-Tree (M. tripetala). A small-sized tree, of rapid growth, with immense leaves; flowers creamy white, four to six inches in diameter.
 Grandiflora. This magnificent Southern evergreen may be called the Queen of the Magnolias. It is really a grand tree, but, unfortunately, too tender to stand the winters well north of the Potomac, and even the climate along the mountains of Virginia is rather too severe for it to do well; but east of Richmond and south of James river it flourishes finely. The tree is of rapid and handsome growth; leaves eight to ten inches long, which are retained the whole year; flowers large, white, and very fragrant. fragrant.

**Everblooming, Chinese Hybrid** (*M. Semperflorea*). One of the best yet introduced; very desirable on account of never being without bloom; purple, large; very pretty.

Lennes (Lenne's Magnolia). A seedling of Purpurea; foliage large; flowers dark purple; very fine.

MAGNOLIA, Yulan, or Chinese White (M. conspicua). A medium-sized tree, with a regular form; flowers are large and pure white, and appear before the leaves; very beautiful.

Purple Japan (M. purpurea). A small tree, or rather large shrub; flowers dark

purple outside, and shaded to white within.

Soulange's Hybrid Chinese (M. Soulangeana). Shrubby and branchy when young, but becoming a fair-sized tree; flowers white and purple, three to five inches in diameter; blooms late; handsome and hardy.

Glaucous-Leaved, or Sweet Bay (M. glauca). A small tree, indigenous to the lower portions of Maryland, Virginia and other Southern states; leaves shiny above and glaucous or whitish beneath; flowers white and very sweet.

**Showy-Flowered Magnolia** (*M. speciosa*). Flowers a little smaller than those of Soulangeana, and of lighter color; blooms a week later, and remains in perfect condition on the tree longer.

**Slender-Growing Magnolia** (*M. gracilis*). A small tree, or large shrub; flowers cup-shaped, dark purple.

MOUNTAIN ASH, European (*Pyrus aucuparia*). A small tree, with dense and regular head. In the Northern states it is covered from July till winter with great clusters of bright scarlet berries, but here and southward it drops them much earlier, therefore losing much of its beauty.

American (S. Americana). A tree of coarser growth and foliage than the preceding.

MAIDENHAIR TREE, or Japan Ginkgo (Salisburia adiantifolia). A remarkable tree from Japan, of medium size; leaves fan-shaped.

MULBERRY, Downing's Everbearing (Morus multicaulis). A fine, rapid-growing tree, bearing large, fine black fruit.

White Mulberry (M. alba). A native of China; tree small; growth slender, but rapid; fruit pinkish white.

MIMOSA, Silk-Tree (Acacia Julibrissin). A small-sized, spreading tree, producing pretty flowers.

OAK, English Oak (*Quercus robur*). Spreading and slow grower, but forms a large, majestic and grand tree at maturity.

White Oak (Q. alba). One of the noblest of our native trees, of large size, and widely spreading branches.

Willow-Leaved Oak (Q. phellos). A very pretty, medium-sized tree; leaves long and narrow, like those of the willow; very distinct and effective.

OSAGE ORANGE (Maclura aurantiaca). A native tree, of medium size and spreading habit; leaves bright, shiny green; the fruit resembles an orange; extensively used for hedges.

PEACH, Double White-Flowering (Persica vulgaris, alba fl. plena). Flowers pure white and very double.

Double Rose-Flowering Peach (P. vulgaris, fl. rosa plena). Flowers double, pale rose-colored; resemble small roses; very pretty.

**Double Red-Flowering** (*P. vulgaris, sanguinea fl. plena*). Flowers semi-double, bright red; very fine.

The three varieties above described are all very attractive, and their effect is very pleasing when all are grouped together.

POPLAR, White or Silver Poplar, or Silver Abele (*Populus alba*). A native of Europe, of very rapid growth and spreading habit; leaves dark green above, but very white beneath.

Balsam Poplar (P. balsamifera). A native tree, of very rapid growth; leaves large and glossy.

Carolina Poplar, or Cottonwood (*P. Caroliniana*). A large-sized tree, of remarkably rapid growth, and becoming popular with those who want shade in the shortest possible time.

PAULOWNIA (P. imperialis.) A fine, tropical-looking tree, from Japan, of very rapid growth; leaves twelve to fourteen inches in diameter blossoms trumpet-shaped, formed in large, upright panicles.

SALISBURIA (S. adiantifolia). See Maidenhair Tree.

**SOPHORA**, Japan Sophora (S. Japonica). A medium-sized tree, light-colored, soft foliage; flowers of a light cream color, in panicles.

**SWEET GUM** (*Liquidambar styraciflua*). A fine native ornamental tree, the foliage resembling that of the Maple; corky bark; leaves changing to deep crimson in the autumn.

**TULIP TREE** (*Liriodendron tulipifera*). A magnificent native tree, with large, smooth, shining leaves; flowers tulip-shaped, greenish yellow; fine for shade; difficult to transplant except when of small size.



Kilmarnock Willow. (See page 86.)

**WILLOW**, Golden Willow (Salix vitellina aurantiaca). A handsome tree, particularly conspicuous in winter on account of its yellow bark.

**Annularis**, or **Ring-Leaved**. Very rapid grower; upright, with leaves curiously curled like a ring.

YELLOW WOOD, (Virgilia lutea or Cladrastis). A very fine American tree, resembling the Locust, with long racemes of white, sweet-scented flowers in June; a tree of slow growth, but one of the finest.

### WEEPING TREES.

- **ASH**, Weeping Ash (*Fraxinus excelsior pendula*). A tree of medium size, with stiff, twisted, pendulous branches.
- **BEECH, Weeping Beech** (Fagus pendula). A graceful, elegant tree, with branches more or less pendant.
- **BIRCH**, Weeping Cut-Leaved Birch (Betula alba, var. pendula laciniata). A charming tree in the Northern states, but does not show so much beauty South, except in very favorable locations; it is of very graceful, drooping habit, silvery white bark and delicate, cut foliage.
- CHERRY, Dwarf Weeping Cherry (Cerasus pumila pendula). A curious and beautiful little round-headed drooping tree.
- **DOGWOOD** (*Cornus pendula*). Very similar in foliage and flower to the common white Dogwood, yet with decidedly drooping branches; hardy and very handsome; makes brilliant autumn foliage; a beautiful lawn tree of dwarf habit.
- **ELM**, Camperdown Weeping Elm (*Ulmus* var. *Camperdown pendula*). A drooping and picturesque variety of the Scotch Elm; foliage large, dark green, covering the tree with a luxuriant mass of verdure.
- **MULBERRY.** Fountain-shaped, like the Kilmarnock Willow; long, slender branches drooping to the ground; very hardy and striking; among the best of weeping trees.

LINDEN, White.Leaved Weeping Linden (Tilia alba pendula). A fine lawn tree, with very graceful, drooping branches and downy white leaves; a rapid grower, and quite hardy.

MOUNTAIN ASH, Weeping Mountain Ash (Sorbus Aucuparia pendula). The branches of this distinct variety are of a straggling, pendent habit; a rapid grower.

WILLOW, Common Weeping Willow (Salix Babylonica). A native of Asia. This is one of the most graceful and beautiful of the weeping trees; it is of rapid growth, attaining a very large size, showing its greatest beauty in damp or moist soils, but grows fairly well in any good soil.

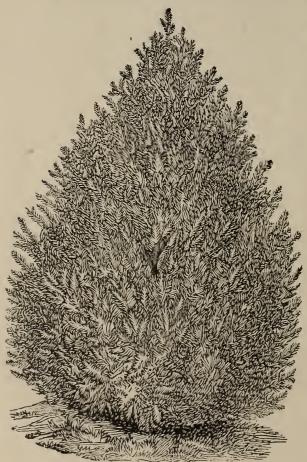
Kilmarnock Willow (S. cuprea pendula). A variety of the Goat Willow, making a very pretty tree when budded six or eight feet high; forming a complete umbrella head, the branches and foliage being very dense, unique in form.

New American Weeping Willow (S. purpurea pendula). A small, slender-branched species from Europe; often known as the Fountain Willow.

Rosemary-Leaved Willow (S. rosemarinifolia or petiolaris). A shrub, native of this country; when worked five to seven feet high makes a pretty, small, round-headed tree.

#### EVERGREENS.

ARBOR-VITÆ, American (Thuja occidentalis). Sometimes called White Cedar, a well-known native species, of great value, forming an upright, conical tree of medium



Chinese Golden Arbor-Vitæ.

conical tree of medium size; especially valuable for screens and hedges.

Booth's Dwarf (T. punila). Forms a dwarf, dense bush, rounded in form; foliage dark green; one of the best.

Chinese (Biola orientalis). From China and Japan; a small tree, with erect branches and dense, flat, light green foliage.

Chinese aurea). This is the most elegant and charming, and justly becoming the most popular of the Arbor-Vitæs; the beautiful golden tint of its foliage and the compact and regular outline of its habit render it unusually attractive.

Ever Golden (Biota orientalis semper aurea). This very distinct evergreen is very desirable on account of its never changing its beautiful bright golden color; yery hardy.

Globe - Headed (T. globosa). Originated at Philadelphia; forms a dense, round head; dwarfish in habit; desirable.

Geo. Peabody. Compact, with bright golden color which it retains throughout the year; one of the best.

Heath-leaved (*T. eri-coides*). A dwarf variety, with heath-like foliage; forms a dense bush but a few feet high.

ARBOR-VITÆ, Hovey's Golden (T. Hoveyi). Of dwarfish habit : globular in outline: foliage of a light yellowish green hue; hardy and fine. **Parsons'** (*T. compacta*). A dwarf of compact habit and yellowish green foliage.

Reid's (T. Reidii). A very pretty dwarfish variety, with slender twigs and bright

green color. Siberian (T. Sibirica). A well-known popular variety; tree of medium size, very hardy, of dark green color and compact growth.

Upright (T. pyramidalis). Of very erect form; dark green, compact, and very desir-

BOX, Dwarf-Box (Buxus suffruticosa). The well-known sort used for edging; makes a very pretty little shrub when planted singly.

Common Tree-Box (B. sempervirens). A

handsome shrub, with deep green foliage; succeeds well in the shade. Myrtle-Leaved Box (B. myrtifolia). A regu-

lar cone, with small, oboyate leaves.

Round-Leaved Chinese Box (Var. rotundi-

folia). Elegant shrub. Broad-Leaved Chinese Box (B. latifolia). Has broad leaves; one of the most desirable

Thyme-Leaved Box (B. thymifolia). Habit compact; growth slow.

Silver Striped-Leaved Box (B. argentea).

Gold Striped-Leaved Box (B aurea).

CEDAR Deodar Cedar (Cedrus Deodara). A native of the Himalayas, being one of the most graceful and elegant of all the European trees; growth rapid, branches drooping; foliage light glaucous green; not entirely hardy north of Philadelphia.

Cedar of Lebanon (C. Liboni). A regularl conical tree, with deep rich green foliage. A regularly

CYPRESS, Lawson's Cypress (Cupressus Lawsoniana). From California; a large, graceful tree, having elegant, drooping branches; leaves dark, glossy green, tinged with a glaucous hue; one of the finest of its class.

Slender-Growing Lawson Cypress (Var.

gracilis). Graceful, drooping branches, of a silvery, glaucous color; very graceful.

Nootka Sound Cypress (Var. Nutkænsis).

A hardy and desirable species from Nootka Sound\* pyramidal in habit, forming a tall tree, with dark green, slightly glaucous foliage.

Lawson's Pyramidal Cypress (Var. pyramidalis). Upright and dense in its habit of growth.

CRYPTOMERIA, Japan Cedar (C. Japonica. A rapid-growing tree, of graceful habit.

EUONYMUS, Japan Euonymus. Leaves shining green; used for hedging; also desirable on the lawn.

Silver-Striped Euonymus (E. argentea). Gold Variegated Euonymous (E. aureus).

FIR, Balsam Fir, Balm of Gilead (Picea balsamea). A well-known and popular tree;

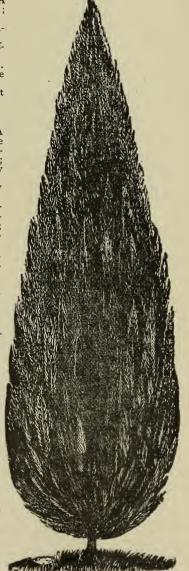
very pretty when young.

English Silver Fir (*P. pectinata*). A noble tree, with spreading, horizontal branches; dark, shining green color, holding its color well through the winter; it is rather stifflooking, when young, but makes a splendid

Nordman's Silver Fir (P. Nordmanniana).
A rapid grower, regular in outline, foliage massive, dark green; one of the finest of the

Silver Firs.

Pinsapo Fir (P. pinsapo). From the mountains of Spain; compact in growth, leaves deep, shining green; very pretty, but not entirely hardy in the Northern states.



Irish Juniper.

**HOLLY** (*Nex*). A well-known evergreen tree, with shining, thorny leaves, somewhat resembling the Oak in form; produces ornamental red berries, which hang on the tree through the winter.

European Holly. Very similar to the native Holly in general appearance; somewhat darker shade of green, and more compact in habit and growth.

JUNIPER, Irish Juniper (Juniperus Hibernica). A distinct and beautiful variety, of very erect, dense, conical outline, resembling a pillar of green.

Swedish Juniper (J. Suecica). A small-sized, handsome, pyramidal tree, with foliage of a pale, yellowish hue; quite hardy.

Common Juniper (J. communis). The well-known native species, growing six to

ten eet high.

Savin Juniper (J. Sabina). A low-spreading, dark green shrub; thrives on poor soils. Prostrate Juniper (J. prostrata). A native, trailing species, densely branched, of very dark green color; well suited for covering rockwork.

MAHONIA, Holly-Leaved Mahonia (M. aquifolia). A native species, with purple, prickly leaves, and showy, bright yellow flowers.

MAGNOLIA GRANDIFLORA. See page 83.

PINE, Austrian (Pinus Austriaca). A rapid-growing species, with long, stiff, dark green leaves

Scotch (P. sylvestris). A rapid-growing, hardy tree, with bluish foliage and rugged shoots.

White, or Weymouth Pine (P. strobus). A well-known native tree; very hardy,

and of rapid growth; foliage light silvery green.

Bhotan Pine (P. excelsa). A graceful, elegant tree, resembling the White Pine, but with longer foliage; native of the Himalayas.

Swiss Stone Pine (P. Cembra). A distinct European species, of short, compact

growth.

Dwarf Mugho Pine (P. Mughus). An evergreen shrub; very hardy; leaves short, stiff, dark green. Corsican Pine (P. Laricio). A handsome, open, pyramidal tree, with dark green,



Norway Spruce.

twisted leaves. RETINOSPORA, Plume-Like Retinospora, Japan Cy-press (R. plumosa). A very compact-growing variety, with small, light green leaves and short, slender branches; quite hardy.

Obtuse-Leaved (R. obtusa). A pretty and distinct species, growing six to eight feet high, with graceful, drooping

branches

Golden-Tipped Plume-Like Retinospora (Var. aurea). A very striking and desirable plant for this climate; the tips of branches showing a beautiful golden yellow hue.

Silver-Spotted Plume - Like Retinispora (Var. argentea.) Young shoots sprinkled with numerous silvery white dots. Graceful (R. filifera pendula).

Of slender growth; color light green.

SPRUCE, Norway Spruce (Abies excelsa). A European species, of very rapid, elegant and lofty growth, and when it attains to the height of 15 or 20 feet the branches assume a graceful, drooping habit; this is one of the handsomest as well as the most popular evergreen trees; very hardy.

White Spruce (A. alba). A very pretty tree; attains a height of 40 to 50 feet; White Spruce (A. alba). compact in growth; conical in form, with soft, light green foliage; very hardy; desirable. SPRUCE, Hemlock (A. Canadensis). One of the hardiest and most handsome trees branches drooping; foliage delicate, retaining its color well through the win-

ter; should be in every collection, however small; it also makes a highly ornamental hedge.

Himalayan, or Smith's Spruce (A. Morinda). A noble and elegant tree, with graceful, drooping branches. **Douglas' Spruce** (A. Douglasii)

rapid-growing species, but the foliage browns badly in some localities.

WASHINGTONIA or WELLINGTONIA. The Big Tree of California (Sequoia gigantea). Attains extraordinary size on the Pacific coast, but is not entirely hardy in this section.

YEW, English Yew (Taxus baccata). small, bushy tree, with rich, dark, glossy green foliage; suitable for clipping into artificial forms.

Irish Yew (T. fastigiata). Of habit and dark green foliage. Of close, erect

Japan Yew (T. adpressa). A hardy, very pretty evergreen shrub, with dark green leaves and dense habit of growth.



Hemlock Spruce.

### FLOWERING AND OTHER SHRUBS.

ALTHÆA or Rose of Sharon (Hibiscus). The althæas are fine, hardy, free-growing flowering shrubs, of easy cultivation, and desirable on account of their late

summer-blooming. Our collection comprises a great variety of colors and shades. Syriacus, Variegated-Leaved Double Purple-Flowered Althæa (H. flore pleno fol. variegatis). A conspicuous variety, with foliage finely marked with light yellow, and producing double purple flowers; one of the finest variegated-leaved shrubs.

Amaranthus. Rich purple; fine.

Bicolor. Double white, with red striping.

Duchesse de Brabant. Flower large, very double, of reddish-lilac color; one of the best varieties

Elegantissima. Bright pink, beautifully striped.

Fleure Blanche. Pure white, single flower; fine. Comte de Flanders. Bright maroon.

Carnea plena. White, tipped with pink. Ranunculæflora. White, with maroon center.

Fire Ball, Grandiflora,

New and desirable.

Lady Stanley.

Sanguinea. Dark crimson.

Violet Clair. Clear violet.

Purpurea. Double, reddish purple.

Pæoniflora. Large double pink; very pretty.

ALMOND (Dwarf), Double Rose-Flowering Almond (Frunus Japonica flore rubro pleno). A beautiful small shrub, producing an abundance of small, double, rose-like flowers, closely set upon the twig before the leaves appear; very attractive.

White-Flowering Almond (Prunus Japonica flore albo pleno). Produces beautiful,

double white flowers in April.

AZALEA, Pink-Flowering American Honeysuckle (Azalea nudiflora). A native species, with beautiful pink flowers.

Pontica. Fine yellow flowers.

BERBERRY, European Berberry (Berberris vulgaris). A showy, upright growing shrub; covered in autumn, with brilliant red fruit.

Purple-Leaved Berberry (Var. purpurea). A fine variety, with purple leaves and showy flowers.

**BLADDER SENNA** (*Colutea arborescens*). A large shrub, with small, delicate foliage, and pea-shaped blossoms, followed by curious, inflated pods.

CALYCANTHUS, Sweet-Scented Shrub (C. floridus). A well-known native bush, the young wood of which has a strong aromatic odor; foliage luxuriant, and the rare, chocolate-colored blossoms are delightfully fragrant; blossoms in May and at intervals during the summer.



Deutzia crenata Fl. Fl.

CRAPE MYRTLE (Lagerstroemia Indica). A well-known and beautiful shrub; very attractive on account of its profusion of crape-like flowers, which appear about midsummer, and continue for two months or more; hardy south of Maryland.

DAPHNE, Garland Flower, Mezereon (Daphne cneorum). Partially evergreen, of trailing habit; flowers pink; very fragrant.

Common Mezereum. A small shrub, producing pinkish, fragrant flowers very early

in the spring.

DEUTZIA, Rough-Leaved (D. scabra). An upright, thrifty shrub, bearing a profusion of white flowers in May.

Slender-Blanched (D. gracilis). A smaller variety than the preceding: branches Slender-Blanched (D. gractus). A smaller variety than the preceding; branches slender and graceful, producing a profusion of pure white flowers that literally crowd the branches; exceedingly pretty and very hardy.
 Double-Flowering Deutzia (D. crenata flore pleno). From Japan; flowers double, white, delicately margined with pink. This is deservedly one of the most popular

and desirable flowering shrubs, and no collection can be complete without it **Double White** (Flore alba pleno). Produces a profusion of double, pure white flow-

ers, similar in habit to preceding.

Fortune's Deutzia (D. Fortunii). Dark green foliage, and large, single flowers.

Their hardihood, luxuriant foliage, and profusion of attractive flowers, render the Deutzias deservedly the most popular flowering shrubs in our collection.

Pride of Rochester. Origin in Rochester, N. Y. Large, double, white flowers, the back of the petals being tinted with rose; excels most of the old kinds in flower and

vigorous habit; quite early and very handsome.

EUONYMUS, Strawberry, or Spindle-Tree (E. Europæus). An ornamental shrub of large size, whose chief beauty consists in its brilliant red berries, which hang on till late in the fall.

EXOCHORDA GRANDIFLORA. Japanese origin. A superb shrub, furnishing clouds of bloom in May; the flower is large, pure white, in racemes of five or six, with spoon-shaped petals, which are very narrow and stand apart at the base; the bush is largegrowing, attaining sometimes to feet in height and nearly as broad; perfectly hardy; a grand shrub, indeed.

EVERGREEN THORN (Cratægus Pyracantha). A low, bushy plant, retaining its foliage all winter; has pinkish or white flowers, succeeded by dense clusters of orange-scarlet berries.

nite - Fruited Pyracantha (Var. alba). A variety with pure white fruit; good for hedging. White - Fruited

FORSYTHIA, Golden Bell (F. viridissima). Flowers golden yellow, produced in the greatest profusion in the very early

spring.
Fortune's Forsythia (F. For-Growth upright; flowtunii). ers golden yellow.

(F. sus-Weeping Forsythia Growth slender and pensa). drooping; flowers yellow.

FRINGE, Purple Fringe, Smoke Tree, Venetian Sumac, Etc. (Rhus cotinus). A very elegant ornamental tree, or large shrub, with curious, hair-like flowers of pale purplish color that cover the whole plant; very desirable.

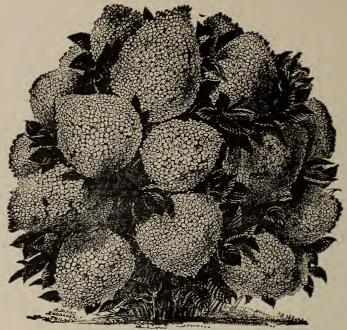
White Fringe (Chionanthus Virginica). See Ornamental Trees.

HAZEL, Purple - Leaved European Hazel - Nut (Corylus arellana autro-purpurea). A vigorous shrub, with deep purple leaves; also desirable for its fine fruit.

American Hazel-Nut (C. Ameri-A shrub three to five cana). feet high, producing a profusion of well-flavored nuts.



Exochorda grandiflora.



Large-Panicled Hydrangea.

HALESIA, Common Snow-Drop, Silver Bell (Halesia tetraptera). Produces in the spring very pretty white, bell-shaped flowers.

HYDRANGEA, Garden Hydrangea (H. hortensis). Hardy, foliage large; flowers produced in large, globular greenish heads, changing to light rose-color.

Oak-Leaved Hydrangea (H. quercifolia). Leaves large, turning to crimson in the

autumn; flowers white, changing to purple.

Hydrangea paniculata. One of the hardiest of its kind; very distinct in flower and foliage; not quite as free a bloomer as H. grandiflora, but very pretty and desirable.

Large-Panicled Hydrangea (H. paniculata grandiflora). This is one of the very finest shrubs of recent introduction, growing eight to ten feet high, producing immense pyramidal panicles of white flowers more than a foot long; blooms in August and September; indispensable.

Thomas Hogg. An attractive variety, with enormous heads of pure white flowers;

recently introduced from Japan.

Otaksa. From Japan; plant produces immense trusses of rose-colored flowers in June. HONEYSUCKLE, UPRIGHT. The following species are upright or shrubby plants. The climbing sorts belonging to this class will be found described under the heading of Climbers and Creepers Tartarian Honeysuckle (Lonicera Tatarica). From Tartary; flowers abundant;

rose-colored.

White-Flowering Tartarian Honeysuckle (L. Tatarica var. alba). Similar to the preceeding, but with nearly pure white flowers.

Great Red-Flowering Honeysuckle (L. var. rubra grandiflora). growth; flowers very abundant; deep rose; very attractive.

HAWTHORN. See Ornamental Trees.

JAPAN QUINCE (Pyrus Japonica, Cydonia Japonica, etc.). Produces bright scaflet flowers in great profusion in the early spring; very attractive and hardy; one of the very best hardy shrubs in the catalogue.

White-Flowering Japan Quince (C. J. alba. A desirable shrub, producing delicate white and blush flowers in early spring.

Semi-Dcuble Japan Quince (C. J. semi pleno). A variety of the scarlet, with semi-double flowers.

JAPAN GLOBE-FLOWER, Corchorus (Kerria Japonica). A flexible, green-branched shrub, producing for several months double globular yellow flowers.

LILAC, Common Lilac (Syringa vulgaris). Very generally known and admired, with its profusion of fragrant bluish purple flowers.



Prunus triloba, or Double-Flowered Plum.

LILAC, Common White (Syringa var. alba). Flowers produced in slender panicles;

pure white and fragrant.

Josika's (S. Josikæa's). A distinct species, producing deep lilac flowers.

Lilac of Marley (Syringa de Marley). Flowers of reddish purple, borne in great profusion.

Persian Lilac (S. Persica). A native of Persia; grows four to six feet high; foliage small, flowers bright purple; fragrant.

Sanget's Lilac (S. Sangeana). Purplish red; flowers very fine.

White Persian (S. var. alba). Similar to the preceding, except that the flowers are nearly white, being slightly shaded with purple,

**PLUM, Double-Flowered** (*Prunus triloba*). Of recent introduction from China; a very hardy shrub; flowers semi-double, of a delicate pink, closely set along the branches,

forming a compact spike; very pretty and desirable.

Purple-Leaf Plum (*Prunus Pissardii*). One of the very best small trees or shrubs of recent introduction; the foliage is a beautiful red purple, changing to a deep, black purple; the hot sun has no ill effect on its rich colors; it remains beautiful until frosts come, something unusual in purple-leaf plants; by far the best of its kind; exceedingly hardy and very easy to transplant.

PRIVET, Common Privet (Ligustrum vulgare). A shrub with delicate, shiny foliage, pretty white flowers, succeeded by bunches of black berries; very suitable for hedging.

California Privet (L. ovalifolium). A vigorous, hardy variety, of fine habit and foliage, nearly evergreen; grows well in almost every soil; ornamental, and one of the best hedge-plants.

**PÆONIA**, Tree Pæony (*Pæonia Moutan*). The varieties are handsome flowering-shrubs, attaining five to eight feet in height; flowers very large and quite numerous, with gorgeous colors.

SPIRÆA, ariæfolia. A profuse bloomer, having large panicles of elegant white flowers. Billard's Spiræa (S. Billardii). Bright, rose-colored flowers; blooms nearly all summer; desirable.

Fortune's Spiræa (S. callosa). A fine sort; flowers light pink; produced in large

panicles; blossoms nearly all summer.

Fortune's Dwarf White Spiræa (Scallosa alba). A new dwarf variety, with pure

white flowers.

Spiræa Billardii alba. Very similar to the rose colored, but with blossoms pure white.

Plum-Leaved Spiræa, Bridal-Wreath (S. prunifolia flore pleno). A very beautiful variety; flowers pure white, small, and very double; blooms very early.

Reeves' Spiræa (S. Reevesii, or lanceolata). A very pretty sort, producing clusters of white flowers that cover the whole plant.

Reeves' Double-Flowering (S. Reevesii flore pleno). This is one of the handsomest of the Spiræas; flowers pure white, very double; indispensable.

Thunberg's Spiræa (S. Thunbergii). A small, white-flowering variety; desirable

for pot-culture.

Common Meadow-Sweet (S. salicifolia). Growth irregular; upright form; nar-



Viburnum Plicatum.

row, willow-like leaves; flowers white.
The Spiræas are a very desirable family of plants, easy of cultivation, hardy, and profuse in flowering.

**SNOWBERRY** (Symphoricarpus racemosus). Flowers small, pink, followed by beautiful clusters of snow-white berries, which hang long on the bush.

Indian Currant (S. vulgaris). Admired on account of its profusion of bright red

coral-like berries.

SNOWBALL, Common Snowball (Viburnum opulus). An old and well-known shrub, bearing large balls of pure white

flowers.

Plicate Viburnum (V. plicatum). A rare and exceedingly beautiful species from China; flowers in large, globular heads, thire benging long on the bush; a pure white, hanging long on the bush; a very choice and desirable shrub.

SYRINGA, Mock-Orange (Philadelphus coronarius). A rapid grower; flowers large, white, and fragrant.

Double-Flowering Syringa (P. nivalis semi pleno). One of the finest varieties;

flowers double, pure white, and fragrant. Red-Twigged Syringa (P. sanguinea). A native species, with long, dull red branches; flowers medium size; white.



Variegaled-Leaved Weigela.

SYRINGA, Golden-Leaved Syringa (P. foliis aureis). A very pretty dwarf plant, with golden yellow foliage, holding its color well through the season.

Large-Flowered Syringa (P. grandiflorus). Flowers large, strong, slightly

fragrant.

TAMARIX, African Tamarix (Tamarisk Africana). A tall, graceful shrub, with small foliage like the Juniper, and delicate, small, rosy purple flowers, produced in spikes; very pretty. tetranda. The most beautiful of the genus; flowers pale pink; blooms late in

T. tetranda.

summer.

Japan Tamarix (Japonica). A small-growing sort, with pretty, delicate flowers.

WEIGELA, Rose-Colored Weigela (Weigela rosea). An elegant shrub, with beautiful and strong rose-colored flowers; hardy, and of easy cultivation; should be in every collection. **Lovely Weigela** (W. amabilis, or splendens). A showy variety, of vigorous growth,

blooming late in the season.

White-Flowered Weigela (W. hortensis nivea). One of the most desirable shrubs grown; flowers pure white, and very abundant; fine for forcing under glass during the winter.

Light Red-Flowering Weigela (Rubra). Pale whitish pink flowers; growth strong.

Great Weigela (W. arborea grandiflora). Large and upright in growth; flowers pale sulphur, white, or yellow, changing to pale pink.

Dwarf Variegated Rose Weigela (var. nana variegata). Of spreading habit; leaves distinctly variegated; stands the sun well.

Desbois' Weigela (W. Desboisi). A deep rose-colored or red variety, similar in growth to Weigela rosea.

#### CLIMBERS AND CREEPERS.

**AKEBIA** (A. quinata). A climbing plant from Japan, with fine foliage and clusters of purplish, fragrant flowers; very pretty.

AMPELOPSIS, American Ivy, or Virginia Creeper (A. quinquefolia). A native vine of vigorous growth, with abundant foliage, which turns rich crimson in the autumn; suitable for covering walls or trunks of trees.

and attaches itself firmly to walls; the leaves are small, turning to brilliant red in the autumn.

CLEMATIS, Virgin's Bower. This is unquestionably one of the handsomest classes of vines for covering arbors, trellises, pillars, etc., that has been introduced. They are slender-branched, rapid growers, with hand-some foliage and beautiful flowers, ranging

in color from white to deep purple. **Jackmanni** ( *Jackmann's*). Without a doubt the best yet introduced, and a general favorite; large velvety, dark violet purple,

strong and hardy. Tenryi. Very large, free grower and Henryi. bloomer; flowers creamy white; one of the best.

Fair Rosamond. Blush-white, with indistinct wine-red bar; fine.

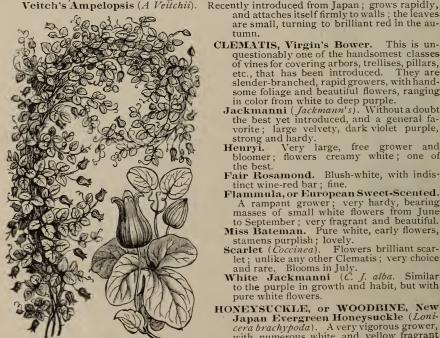
Flammula, or European Sweet-Scented. A rampant grower; very hardy, bearing masses of small white flowers from June to September; very fragrant and beautiful.

Miss Bateman. Pure white, early flowers, stamens purplish; lovely. Scarlet (Coccinea). Flowers brilliant scar-

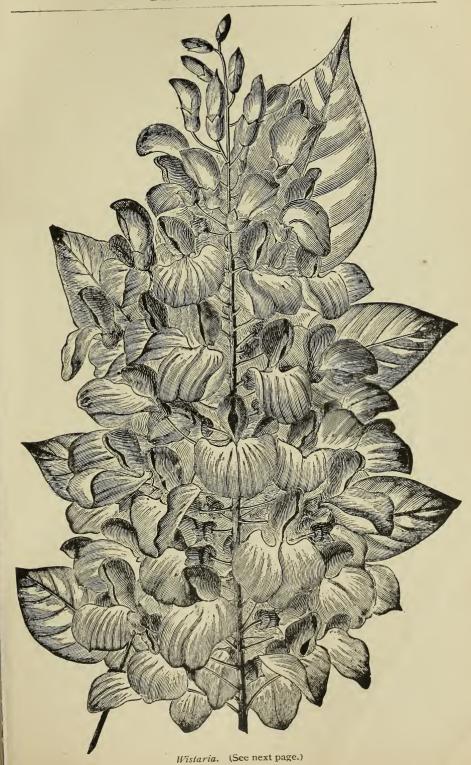
let; unlike any other Clematis; very choice and rare. Blooms in July.

White Jackmanni (C. J. alba. Similar to the purple in growth and habit, but with pure white flowers.

HONEYSUCKLE, or WOODBINE, New Japan Evergreen Honeysuckle (Lonicera brachypoda). A very vigorous grower, with numerous white and yellow fragrant flowers.



Clematis Coccinea.



HONEYSUCKLE, or WOODBINE, Golden-Veined (L. brachypoda aureo reticu-la/a). A handsome and desirable variety, with elegantly-veined and netted foliage.

Hall's New Japan Honeysuckle (Halleana). A strong, vigorous evergreen sort; flowers white, changing to yellow; very fragrant, and is covered with flowers nearly all summer and autumn; the best of all the Honeysuckles.

Chinese Twining Honeysuckle (L. Japonica). An old favorite, holding its foliage through the winter; flowers red, yellow, and white variegated; very sweet.

Common Woodbine (L. periclymenum). A strong, rapid grower, with showy flowers, red outside, buff within.

Monthly Fragrant or Dutch Honeysuckle (var. Belgicum). Blooms through-

out the season; flowers red and yellow; very fragrant.

Red Coral or Scarlet Trumpet Honeysuckle (L. sempervirens). native vine, producing scarlet, inodorous flowers through the summer.

Yellow Trumpet Honeysuckle (L. flava). A well-known native vine, with yellow trumpet flowers.

IVY (Hedera). The Ivies are evergreens, and much used for covering walls, trees, etc., clinging tenaciously thereto. They generally succeed best in a cool or somewhat shaded place. We grow the most desirable sorts.
 JESSAMINE, Naked-Flowering Jessamine (J. nudiflorum). Produces golden yellow flowers very early in the spring, before the foliage appears.
 Common White Jessamine (J. officinale). A popular climber, with very fragrant

white flowers.

Golden Variegated Jessamine (var. variegatum). The markings are pure white, golden yellow, and pink; flowers white and very fragrant.

PERIWINKLE, Great Periwinkle (Vinca major). A trailing evergreen; leaves

large, deep green; flowers large, pale blue.

Lesser Periwinkle (V. minor). Much smaller than the above; dark green, shiny leaves and purplish blue flowers.

Variegated Periwinkle (V. variegata aurea). Profusely marked with distinct

yellow blotches; fine for baskets.

White-Flowering Periwinkle (r. flore alba). Flowers profuse; pure white.

TRUMPET-FLOWER, American Climbing Bignonia (Tecoma radicans). A rapid-growing native plant, with large, trumpet-shaped scarlet flowers.

Great Trumpet-Flower (T. grandiflora). A fine climber, with large, showy, pale

orange colored flowers.

WISTARIA, Chinese Wistaria (W. Chinensis). One of the most elegant and rapid-growing of all the climbing plants; attains a very large size, sometimes growing fifteen or more feet in a season; has long racemes of pale blue flowers in spring and sometimes in autumn.

Double-Purple Wistaria (W. flore pleno). The habit of the plant is similar to the preceding; flowers very double, and deeper in color than the former.

White-Flowering Wistaria (W. alba). Like the preceding, except that the flowers are pure white and single.

American Wistaria (W. frulescens). Not so vigorous a grower as the Chinese varieties; flowers pale blue, in short clusters.

#### EVERGREEN HEDGE-PLANTS.

American Arbor-Vitæ, Siberian Arbor-Vitæ, Hemlock Spruce, Norway Spruce,

Tree-Box. Dwarf-Box.

#### DECIDUOUS HEDGE-PLANTS.

Osage Orange,

Japan Quince.

## HERBACEOUS PAEONIES.

These are showy, beautiful and easily-cultivated plants. We have them in variety.

# HARDY HERBACEOUS FLOWERING-PLANTS.

DIELYTRA SPECTABILIS, Bleeding Heart. A handsome, curiously-formed, rosy crimson flower, with white and blue-tinged stamens; a fine border plant.

YUCCA, Spanish Bayonet, Adam's Needles, etc. (Y. filamentosa). Flowers on stalks three to four feet high; quite showy.

# ROSES.

The Rose has long been acknowledged as the "Queen of Flowers." No flower yet intro-

duced compares at all with the Rose in exquisite beauty and fragrance, and no word of praise can add to its charms. We aim to keep on liand a good supply of only the very best varieties, such as will bloom freely and give satisfaction.

Roses of the Tea and Monthly class are not altogether hardy north of Virginia, yet with careful banking of the earth high around the plant most kinds do well. The Hybrids, Mosses and Clusters are more hardy, still some protection is very beneficial to these, if it only be a covering of loose straw or leaves. Coarse stable manure is the best mulch for winter and summer. We would recommend that north of Virginia selections should be made from the Hybrid Perpetual class. and especially where complete hardiness and large plants are desired. Spring is the best time for planting Roses. The soil should be rich and well drained, with careful culture, to insure success. Annual pruning is very beneficial.



American Beauty.

# SEVEN CHOICE ROSES.

#### American Beauty.

A grand rose for either forcing or outdoor culture. Its very double flowers are of a deep crimson color and very fragrant; it is of full and very perfect form, with the petals finely imbricated; a constant bloomer and strong grower. Very desirable in every way; its rich "June rose" scent would alone commend it, to say nothing of its many other good qualities.

#### La France.

This superb rose becomes more popular with each year; its color is a beautiful peach pink, and it is an elegant variety, both in bud and flower. No collection is complete without La France; its fragrance is unsurpassed and peculiar to itself.

#### Catherine Mermet.

This fine salmon pink Tea rose is deervedly and increasingly popular; its buds are often immense in size and are considered perfection in form; they always command a high price in the flower stores.



La France.



Perle des Jardins.

#### Perle des Jardins.

This grand yellow Tea is the favorite, and certainly one of the best roses ever introdoced. Its buds, which are of large size, perfect form and rich color, will continue its popularity. A strong grower and free bloomer.

#### Papa Gontier.

This rose has fully met our expectations, bearing, as it does, dark carmine-crimson buds, which, combined with their rich color and fine shape, have a delightful fragrance, making it a very desirable variety; it is a great improvement on the old and once popular favorite. Bon Silene, and after careful trial it stands out as one of the very best roses of recent introduction.



The Bride.

A white sport from Catherine Mermet, with all the latter's good qualities, added to which it is a more profuse bloomer.

#### Puritan.

The habit of this new Hybrid Tea Rose is strong, and the wood straight and stiff, with the foliage well up to the flowers. Every shoot ends in one of its pure white flowers, which, besides being very handsome, have a delicious fragrance. A splendid variety.

## TEA AND MONTHLY ROSES.

The Tea Rose may well be considered the highest type of the Rose, in color fragrance, and grace of form. All Teasbloom freely throughout the season.

Bon Silene. Rosy carmine, shaded with salmon; fragrant and very free flowering. Valuable for the buds.

Coquette de Lyon. Pale yellow; medium or small size; the most profuse blooming and valuable bedding sort of all the Teas.

Devoniensis. Creamy white, with pink center.

Duchess of Edinburgh. Seedling from Souv. de David d'Angiers. Deep crimson, traitie in the band and applied a force de size, moderately full; no fragrance. turning lighter as the bud expands; of good size, moderately full; no fragrance.

Duchesse de Brabant. Silvery pink; very free.

Hermosa. Bright rose; a most constant bloomer. One of the best.

Isabella Sprunt. Sulphur-yellow; very beautiful in the bud. A sport from Safrano, which variety it greatly resembles in every particular, save the color of the flower.

Safrano. Safron and apricot; a very free bloomer. One of the oldest varieties, and in the bud each reproduct the warners.

in the bud state, scarcely to be surpassed.

Souv. de la Malmaison. Delicate flesh tinted with fawn; flat form; very large and full, with rich foliage.



HYBRID PERPETUAL ROSES

This class of Roses is admirably suited for garden culture, for the formation of rose beds, hedges and permanent plantations, where hardy varieties are desired. They are not strictly *perpetual* bloomers, though many of them yield a fair second crop in the autumn, especially if judiciously pruned.

This class, taken all in all, gives most general satisfaction, because of the brilliant colors and large size of

its flowers and the entire permanence of the plants.

Anne de Diesbach (Glory of France). Raised from La Reine. Carmine, a beautiful shade; very large; a superior garden sort; fragrant; one of the hardiest. Valuable for forcing. Budded and on own roots.

Baroness Rothschild. Light pink; cup form, very symmetrical; without fragrance. Very distinct and beautiful; one of the finest exhibition varieties. The wood is short jointed; very hardy and late bloomer.

Coquette des Blanches. Pure white, sometimes faintly tinted with pink; flowers of medium size, somewhat flat, but full and very pretty; growth more bushy and symmetrical than any of the others; one of the hardiest; later than the rest in coming into flower. This seems to supersede Baron de Maynard and Mad. Alfred de Rougemont.

Coquette des Alpes. White, slightly shaded with carmine; medium size, form semi-cupped; wood long jointed; larger flowers than the others. The strongest grower of the entire class.

Gen. Jacqueminot. A probable seedling from the Hybrid China, Gloire des Rosamanes. Brilliant crimson; not full, but large and extremely effective; fragrant and of excellent, hardy habit; forces well. The most extensively grown of all the Hybrid Perpetuals.

Gen. Washington. A seedling from Triomphe de l'Exposition. Bright red, with crimson shade; large flat form, often indented or imperfect; very large and very free bloomer. Budded and on own roots.

Pale

Mabel Morrison. White, often tinged with pink in the autumn; a very valuable white rose.

M. P. Wilder. (New.) A seed-ling of the popular General Jacqueminot; strong growth, with healthy foliage; color cherry carmine; con-stant bloomer; one of the very best.

Mad. Charles Wood, Rosy crimson, large; constant bloomer.

Magna Charta. Pink, suffused with carmine; full, globular; foliage and wood light green, with numerous dark spines; a fragrant, excellent rose: valuable for forcing. Budded and on own roots.

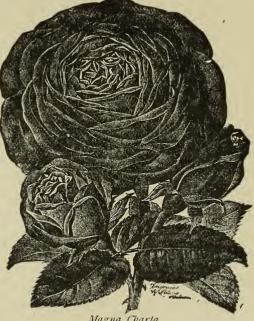
Perfection des Blanches, Pure white

Prince Camille de Rohan. Deep velvety crimson; large, moderately full; a splendid rose. Budded and on own roots.

**Paul Neyron.** A seedling from Victor Verdier, fertilized by Anne de Diesbach. Deep rose color; good, tough foliage; wood rather smooth; by far the largest variety in cultivation; a free bloomer and very desirable as a garden rose; valuable for forcing. Budded and on own roots.

# CLIMBING ROSES.

Roses of this class are valuable for training on trellises and arbors, covering verandas and buildings. They are rapid growers, and produce great quantities of



Magna Charta.

Gray. very full, globular; highly scented. It is of delicate constitution, and requires careful treatment: should not be severely pruned;

the finest of all yellow roses. Queen of the Prairies. Bright rosy red, frequently with white stripe; foliage

handsome bloom. Baltimore Belle.

compact and fine.

blush, becoming nearly white;

Marechal Niel. Said to be a seedling from Isabella Deep yellow; very large,

Reine Marie Henriette. from Mme. Bernard, fertilized by General Jacqueminot. Flowers large and full; beautiful cherry red; a pure shade; flowers somewhat scented; an extra fine climbing varietv

large and quite deeply serrated.

Seven Sisters. Various shades of color— pink, white and carmine. The small, dainty flowers are produced in large clusters. An old

Tennessee Belle. Dark pink, profuse bloomer and strong grower. One of the best climbing roses for the South.

#### POLYANTHA ROSE.

Mignonette. Delicate rose, changing to blush; very small, double; a little gem. One of the best Polyanthas, blooming in immense clusters.



Climbing Rose.

# ENEMIES OF FRUIT TREES AND PLANTS.

The insect and fungous enemies of the orchard and fruit-garden increase so rapidly and are so destructive that inquiries concerning the best methods of combatting them and securing good fruit throng us from every side. In the summary given below we have endeavored to answer these questions.

# Fungous Diseases.

An insect is something tangible. Usually it can be seen, seized in some manner, and promptly dealt with; but the fungous diseases of trees and plants, commonly known as mildew, rust, scab, smut, blight, etc., have long been baffling because their real nature was unknown. Spraying is now the most approved method of preventing the majority of these diseases, and the formulas for mixtures and solutions that have been found most successful are here given. Spraying machines for applying these solutions are sold in all the markets.

For Fungous Diseases of the Apple and Pear the following solutions are recommended.

Formula 1. Paris green. (Poisonous.) Use one-fourth pound of Paris green to 50 gallons of water. Keep well stirred.

Formula 2. London purple. (Poisonous.) Use one-fourth pound of London purple to spailons of water. Keep well stirred. This formula is perhaps more liable to injure the lotinge than Paris green.

Formula 3. Kerosene emulsion. Kerosene emusion is made by adding two parts of kerosene to one part of a solution made by dissolving half a pound of hard soap in one gallon of boiling water, and churning the mixture through a force-pump with a rather small nezzle until the whole forms a creamy mass which will thicken into a jelly-like substance on cooling. The soap solution should be hot when the kerosene is added, but of course must not be near a fire. The emulsion thus made is to be diluted before using with nine parts of cold water.

Formula 4. Bordeaux mixture.

Sulphate of	C	gc	ре	er	(t	lu	ıe	vi	tr	iol	Ι,	blt	ıе	-S	to	ne	)							6 lbs	
Quick lime																							. 1	4 lbs	
Water																							. 2	2 gal	s,

Dissolve the sulphate of copper in two gallons of hot water to hasten the solution. Dilute this solution with fourteen gallons of water. Slake the lime, which must be fresh (i. e., not partly air-slaked), slowly, with six gallons of water, stirring the mixture while so doing to a smooth paste. After this is slightly cooled, pour it slowly into the copper solution, stirring the whole rapidly at the same time. For use this mixture must be stirred and strained through fine brass or copper gauze.

Formula 5. Ammoniacal carbonate of copper

Carbonate of copper										. 3 oz.
Commercial ammonia (22°)										
Water										. 22 gals.

Add the ammonia to the carbonate, and when dissolved dilute to twenty-two gallons with water, forming a clear solution.

APPLE AND PEAR BLIGHT. Cut off and burn all affected parts as soon as noticed

APPLE-SCAB. Spray with Formula 5 just after the leaves expand, and repeat three or four times through the season.

BLACK-ROT IN GRAPES. (1) Spray with Bordeaux mixture, Formula 4, beginning early in the season, and repeating about every two weeks as long as danger lasts; or during the latter half of the season use Formula 5. (2) Manila paper bags securely pinned over the bunches early in the season are a preventive of the rot, and also a protection against birds, wasps, etc.

POWDERY MILDEW IN GRAPES. Dust the vines with powdered sulphur two or three times during the season.

### Insects.

Apple-Tree Borers. The Round-headed Apple-tree Borer (Saperda cundida) is a APPLE-TREE BORERS. The Round-headed Apple-tree Borer (Saperda candida) is a grub hatched from the egg of a brownish beetle with two longitudinal white stripes along its back, which deposits its eggs early in summer near the surface of the ground, where the bark is tender. As soon as hatched, the grub gnaws its way into the inner bark or sapwood, and continues to girdle and perforate the trunk during three summers, coming out of the tree at the end of three years in the butterfly form, again to continue the propagation of the species. There are a number of remedies for this pest: (1) Examine the tree, and cut species. There are a number of remedies for this pest: (1) Examine the tree, and cut the borers out with the point of a knife, or kill them by thrusting a flexible wire as far as possible into the holes. The place where the larva enters can usually be detected by the sawdust-like castings that are pushed out. (2) To prevent the parent moth from laying eggs, apply to trunk of tree the last of April or early in May, and again about a month later, a solution made by mixing one quart of soft soap with two gallons of water heated to boiling, and then add a pint of crude carbolic acid. Apply with a scrub-brush or cloth.

PEACH-BORERS (Ægeria extitosa). These grubs hatch from eggs deposited (usually during May, but also at different times until last of September) by a slender, dark blue four-winged moth. They become small white borers, penetrating and devouring the bark and sapwood, emerging again the next spring in the winged form, and depositing eggs for another generation. The remedies are: (1) Cut out the borers as recommended under apple-tree borers. (2) Earth up (about one foot high) around the trunks of the trees in early spring, and level down in October; and when leveling down, if any grubs have entered trace and kill them. (3) If you don't earth up, apply the solution recommended for painting the trunks of apple-trees for borers.

All borers that infest nut-trees, shade-trees and grape-vines should be hunted out and

CATERPILLARS. Of these the most destructive is *Clisiocampa Americana*. Every one is familiar with the web-like nests which they form on the twigs and in the forks of the branches in the spring. Destroy these nests as soon as they appear in the spring. Do this work in the early morning, on small trees stripping the nests off by hand and crushing them under foot; on larger trees, use a pole with a fork on the end, and by twisting in the nest, pull down and destroy. Or apply Formula 1 or 2, given above, just at the time you spray for the codlin-moth, as the same application destroys both.

THE CANKER-WORM (Anisopteryx vernata). The sluggish, wingless female moth rises out of the ground very early in spring, and slowly ascends the trunk of the tree, laying eggs in clusters on the bark, to which they are secured by a grayish varnish. These usually hatch about the time the young leaves begin to grow, when the little worms at once begin to feed on the foliage. Encircle the trunk of the tree with bands of canvas or heavy paper four or five inches wide, which have been thickly smeared with tar or the residuum of kerosene oil, thus trapping the female moth. Or use formula 1 or 2, at the same time and as recommended for codlin-moth.

THE GRAPE-VINE FLEA-BEETLE (Haltica chalvbea). Dust the plants with a mixture of one part of Paris green or London purple to fifty parts of flour, land-plaster or leached ashes; one application is usually sufficient.

THE GRAPE LEAF-HOPPER (Erythroneura vitis). Pass between the rows at night with a torch, shaking the vines to start the insects. They will fly to the light and be destroyed.

PLANT LICE. Spray with kerosene emulsion (Formula 3).

Scolythus Rugulosus. A minute insect that punctures the upper base of the spurs of the peach. We can only suggest the burning of all affected trees in June as soon as noticed.

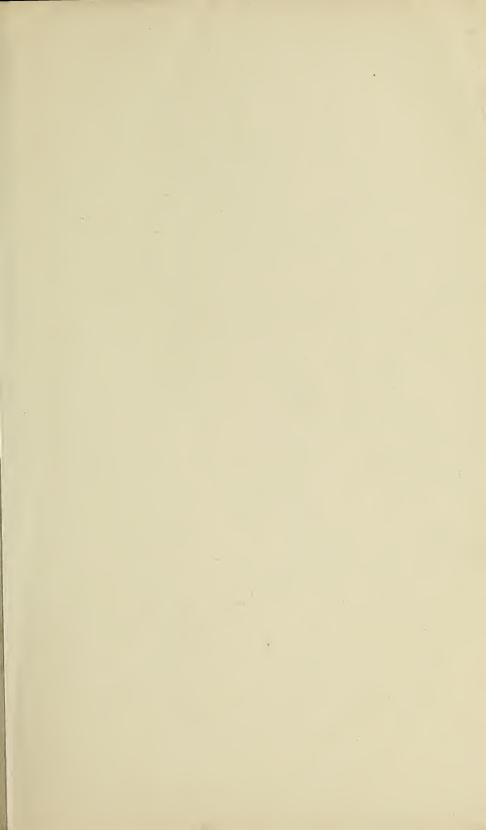
APPLE-WORM or CODLIN-MOTH (Carpocapsa pomonella). The parent moth of insect deposits its eggs in spring in the blossom end of the young apple, before that turned down on its stem. From this egg there hatches a small worm that endowards the core, feeding and increasing in size as the apple develops, causing drop prematurely. Apply Formula 1 or 2, just after the blossoms have for the young apple has turned down on the stem; and in case there is a afterward, repeat the application. Apply by means of a force-pure throwing the liquid above the tree so that it will settle in a fine mist.

CURCULIO (Conotrachelus nenuphur). This greatest enemy o other stone fruits, also affects the apple and other kinds. Jar the tre upon sheets and burn or otherwise destroy them. Another remed trees soon after blossoms fall with Formula I or 2, repeating the applications of the Wild Co. intervals of ten days. . On plums of the Wild Goose class, or on r solution, not more than one ounce to fifteen gallons of water,

well stirred.

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CUT-LEAVED WEEPING BIRCH.